

**Looking to the past to travel in the future:
Post pandemic tourism**

by

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“When the next pandemic comes knocking – and it will – we must be ready to answer decisively, collectively, and equitably”.

(Tedros Adhanom Ghebreyesus, 2023)

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ABSTRACT

Global pandemics have played an enormous role in shaping the tourism landscape. This dissertation focuses on the impact of pandemics on tourism by bringing together the responses to crisis from stakeholders in the 20th and 21st centuries. It examines historical pandemics from the Spanish influenza (1918) to COVID-19 (2019) to compare and identify the trends in policies and their effectiveness. Emphasis is placed on the importance of tourism in global economies and the recovery strategies post-disaster. Tourism-dependent countries are concerned about these disturbances as it leads to a fall in international travel that exacerbates economic problems, especially in developing nations. The research adopts an analytical approach which illuminates both historical policy triumphs and failures to inform future strategies. It draws together aspects from policymakers and stakeholders in order to build a more resilient and adaptable economy that emphasises a need for post-COVID-19 positioning. Various government interventions are considered and conclusions are drawn from both successful and failing methods that could highlight key indicators to assist governments with economic recovery. Finally, the research critiques government responses and suggests ways to improve them to highlight how policymakers should prepare for future crises and indicates how tourism can become more resilient and adaptable post-pandemic.

Keywords: Pandemic; Tourism; Recovery; Policies; Covid-19

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List of Acronyms and Abbreviations

AR	Augmented Reality
CAM	Complementary and Alternative Medicine
CDC	Centre for Disease Control and Prevention
CDFM	Crisis and Disaster Management Framework
CFR	Case Fatality Rate
COVID-19	Corona Virus Disease of 2019
CRED	Centre for research on the Epidemiology of Disasters
CDMF	Crisis and Disaster Management Framework
DRC	Democratic Republic of the Congo
ECDC	European Centre for Disease Control and Prevention
EITC	Ebola Induced Tourism Crisis
EM-DAT	Emergency Events Database
EUAs	Emergency Use Authorizations
EVD	Ebola Virus Disease
FAO	Food and Agriculture Organisation of the United Nations
FDA	Food and Drug administration
G7	Group of Seven
GDP	Gross Domestic Product
GSTC	Global Sustainable Tourism Council
HHS	United States Department of Health and Human Services
HIV	Human Immunodeficiency Virus
IATA	International Air Transport Association
ICAO	International Civil Aviation Organisation
ICU	Intensive-Care Units
IHR	International Health Regulations
JEE	Joint External Evaluation
LEDCs	Less Economically Developed Countries
MERS	Middle East Respiratory Syndrome
MERS COV	Middle East Respiratory Syndrome Corona Virus
MVD	Marburg Virus Disease

N	Neuraminidase
NBCI	National Centre for Biotechnology Information
NGOs	Non-Governmental Organisations
NIH	National Institute of Health
NPI	Non-pharmaceutical Interventions
PIRM	Pandemic Influenza Risk Management
PoE	Points of Entry
PPE	Personal Protective Equipment
RSA	Rapid Situation Analysis
RT-PCR	Reverse Transcription Polymerase Chain Response
SARS	Severe Acute Respiratory Syndrome
SARS COV-2	Severe Acute Respiratory Syndrome Corona Virus 2
SDGs	Sustainable Development Goal
TB	Tuberculosis
TDMF	Tourism Disaster Management Framework
UK	United Kingdom
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNWTO	United Nations World Tourism Organisation
USA	United States of America
USD	United States of America dollars
VFR	Visiting Friends and Relatives
VR	Virtual Reality
WHA	World Health Assembly
WHO	World Health Organisation
WTO	World Tourism Organization
WTTC	World Travel and Tourism Council
WW1	World War 1
WW2	World War 2
ZIKV	Zika Virus

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Chapter 1: Introduction

In the twenty-first century it is still maintained that: “Throughout history, nothing has killed more human beings than infectious disease”.¹ The novel Coronavirus (COVID-19) pandemic that allegedly started in Wuhan, People’s Republic of China (commonly known as China), in December 2019,² is evidence hereof and it has gone on and shaken most industries in the world. The tourism and hospitality industries were hit the hardest with lockdowns, travel bans, and social distancing regulations and laws being implemented in almost all countries. The tourism industry in many countries came to a total standstill.³

During those uncertain times that the world was facing it is often comforting to know that this was not the only pandemic in world history. The world bounced back, and life went on after the previous pandemic disasters, yet, it still remains vulnerable and unprepared. To highlight an example, centenarians have experienced between five and seven major pandemics in their lifetime.⁴ This was probably not the last time that the world will experience a pandemic as there have already been a number of cases including: Marburg Virus Disease (MVD) that emerged again in Tanzania and Equatorial Guinea in February 2023⁵ and the recent Mpox outbreak that spread to over 110 countries.⁶ The more cities

¹ B. Walsh, 2020., <<https://www.bbc.com/future/article/20200325-covid-19-the-history-of-pandemics>>, accessed: 14 April 2021.

² M. Hasnain *et al.*, ‘Combined measures to control the COVID-19 pandemic in Wuhan, Hubei, China: A narrative review’, *Journal of Biosafety and Biosecurity* 2(2020), 2020, pp. 51-57.

³ G. Karabulut *et al.*, ‘How pandemics affect tourism: International evidence’, *Annals of Tourism Research* 84(102991), 2020, pp. 1-5.

⁴ History.com editors, 2020., <<https://www.history.com/topics/middle-ages/pandemics-timeline>>, access: 14 April 2021; M. Dotzert, 2020., <<https://www.clinicallabmanager.com/insight/a-timeline-of-pandemics-22047>>, accessed: 14 April 2021.

⁵ Centers for Disease Control and Prevention (CDC), 31 March 2023., <[https://www.cdc.gov/vhf/marburg/index.html#:~:text=Marburg%20virus%20disease%20\(MVD\)%20is,virus%20of%20the%20filovirus%20family](https://www.cdc.gov/vhf/marburg/index.html#:~:text=Marburg%20virus%20disease%20(MVD)%20is,virus%20of%20the%20filovirus%20family)>, accessed: 14 April 2023.

⁶ Centers for Disease Control and Prevention (CDC), 12 April 2023., <<https://www.cdc.gov/poxvirus/mpox/response/2022/index.html>>, accessed: 14 April 2023; H. Barber, ‘Monkeypox investigation as new cluster sparks fears of possible mutation’, *The Telegraph* online., <<https://www.telegraph.co.uk/global-health/science-and-disease/monkeypox-virus-vaccine-new-cases-mutation-france/>>, accessed: 4 April 2023.

develop and connect places as part of globalization, the higher the chances are of having a more severe pandemic in the future.⁷

Moreover, the main component of tourism is the bringing together of people and places, the very component that pandemics take away thereby destroying the essence of the industry. As a knock-on effect, history and culture can be lost if places are closed due to a lack of income from tourists, and this damage is irreversible. The travel and tourism industry has for a long time needed to adapt and find alternative revenue streams in order to pay bills and keep doors open. Unfortunately, playing 'catch-up' is not sustainable and the industry needs to 'double down' on sustainability to survive.⁸ The United Nations Educational, Scientific and Cultural Organisation (UNESCO) promotes putting culture and community at the centre of tourism recovery. When becoming more sustainable more support needs to be directed towards recovery of communities whose livelihoods depend on World Heritage sites.⁹

According to the economic impact reports from the World Travel and Tourism Council (WTTC) for 2020, the travel and tourism industry incurred a 49.1% loss as a result of Covid-19 which is equivalent to \$4.5 trillion in Gross Domestic Product (GDP). A total of 62 million people working in the tourism industry lost jobs and women, youth and minorities were unfortunately disproportionately affected as they were expected to take on more uncompensated work and were more likely to lose their jobs.¹⁰ The Chief of the Culture Unit for UNESCO, Dr Feng Jing, wrote on the website that UNESCO and

⁷ History.com editors, 2020. <<https://www.history.com/topics/world-war-i/1918-flu-pandemic>>, accessed: 19 May 2021.

⁸ S. Brock, 2020., <<https://www.nationalgeographic.com/travel/article/heres-how-covid-is-changing-travel-according-to-the-experts>>, accessed: 21 May 2021; E. Tutek *et al.*, 2015. 'Tourism Megatrends – 10 things you need to know about the future of tourism', *Report* – Report published by Horwath HTL. <<http://corporate.cms-horwathhtl.com/wp-content/uploads/sites/2/2015/12/Tourism-Mega-Trends4.pdf>>, accessed: 20 April 2021.

⁹ F. Jing, 2022., <<https://bangkok.unesco.org/content/sustainable-tourism-post-pandemic-era-lessons-learned-new-directions-unesco>>, accessed: 18 June 2023.

¹⁰ N. Jus & T. Misrahi, 2020., 'Global Economic Impact Trends 2021', *Report* – Report published by the World Travel and Tourism Council. <<https://wttc.org/Portals/0/Documents/Reports/2021/Global%20Economic%20Impact%20and%20Trends%202021.pdf?ver=2021-07-01-114957-177>>, accessed: 20 August 2021; A. McCool, Why have women been so disproportionately affected by Covid-19? Experts explain', *CNN World.*, <<https://edition.cnn.com/2022/03/10/world/covid-pandemic-gender-women-as-equals-intl-cmd/index.html>>, accessed: 16 April 2023.

partnering United Nations (UN) agencies had investigated and assessed the losses to the global culture and tourism sector and concluded: 89 percent of UNESCO World Heritage sites were closed and a further 104 000 museums across the world were not open which equated to an 80 percent income loss.¹¹

According to the COVID-19 data from the World Health Organization (WHO) and Johns Hopkins University, as of April 2023, there have been 762 791 152 confirmed cases in 220 countries and 6 897 025 people have been estimated to have died worldwide.¹² As of March 2023, Johns Hopkins University has stopped collecting data.. Many people that contracted the virus fortunately survived and only experienced mild flu like symptoms, but they have still felt the secondary effects. COVID-19 caused job losses and pay cuts in multiple countries. Families lost primary bread winners due to poor health and death, businesses closed their doors, people were stuck in their homes many of whom were fearing for their futures, while others were caught in other countries not knowing when they could travel home.¹³ These are just some of the effects caused by this most recent pandemic.

Pandemic and epidemic research has focused much on the economic repercussions of individual countries rather than on the global whole.¹⁴ When it comes to pandemic history research, much of the global tourism industry has been overlooked with sources focusing on individual countries and few studies considering overall impacts. The tourism industry plays such a big role in international income for many countries, while research into making it sustainable during a pandemic has not played an equally large role. On the

¹¹ F. Jing, 2022., <<https://bangkok.unesco.org/content/sustainable-tourism-post-pandemic-era-lessons-learnt-new-directions-unesco>>, accessed: 18 June 2023.

¹² World Health Organization, n.d., <<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>>, accessed: 16 July 2021; Johns Hopkins University and medicine, n.d., <<https://coronavirus.jhu.edu/map.html>> accessed: 16 July 2021.

¹³ J. Choe & M. Di Giovine, 2021., 'Three ways to ensure wellness tourism provides a post-pandemic opportunity for the travel industry'. *The Conversation*. <<https://theconversation.com/three-ways-to-ensure-wellness-tourism-provides-a-post-pandemic-opportunity-for-the-travel-industry-148744>>, accessed: 5 April 2021.

¹⁴ J. Rosselló *et al.*, 'The effects of natural disasters on international tourism: A global analysis', *Tourism Management* 79(104080), 2020, pp. 1–10; H. Liu *et al.*, 'COVID-19 information overload and generation Z's social media discontinuance intention during the pandemic lockdown', *Technological Forecasting & Social Change* 166(120600), 2021, pp. 1–12.

other hand, after a disaster such as a pandemic, the contribution that travel and tourism makes to the restoration of the destination, as well as the GDP, could possibly be the saving grace for the economies of many countries, and this requires further investigation.

The focus of this research was to examine more effective ways in which the tourism industry can recover from disasters such as a pandemic in the future. Furthermore, it investigated how the travel and tourism industry can prepare and possibly prevent such disastrous outcomes when the industry is forced to shut down.¹⁵ Lastly, this study endeavoured to explore techniques that the tourism industry could adopt if such a disastrous pandemic were to occur again. As there are many countries whose main source of foreign income is the tourism industry, it is important to examine possible strategies that can ease the burden of 'unforeseen' disasters.

Thus far the research on COVID-19 and tourism has mainly emphasized quantitative analysis pointing to economic statistics and the financial impact on the sector, and less on qualitative aspects and recovery and resistance strategies. The latter research is important because it helps to fill in the gaps on how to go forward after a pandemic, rather than merely numerically analysing what occurred during a pandemic. This research explains why certain countries, such as Ireland and Luxembourg, are able to have a tourism industry that can rebound so quickly after a crisis such as a pandemic. Furthermore, it sheds light on why other countries, such as South Africa or Spain, took many years to get tourists to return and when they did it was not always at the same capacity as before.¹⁶

1.1 Aim, rationale and statement of purpose

This research takes on a historical view and intended to provide insight into what tourism policy makers have implemented during past pandemics and epidemics since the start of the twentieth century. It intended to highlight what ideas have worked and scrutinised

¹⁵ J. Giesecke, 'Prevention not panic- epidemics and trade sanctions', *The lancet* 356, 2000, pp. 588-589.

¹⁶ Department of Statistics South Africa, 25 August 2022., <<https://www.statssa.gov.za/?p=15690>>, accessed: 16 April 2023.

possible downfalls in planning and policy choices as they pertain to travel on a local, national, and international level. The idea was to explore how we can learn from previous disasters and their challenges or triumphs in order to not make the same mistakes or to learn from their successes. The aim of this study was thus to specifically examine post-disaster travel and tourism homing specifically in on global tourism after a pandemic. The focus of the research is to understand how we can make a more sustainable tourism industry by looking at what has been done in the past and improving on it. This research assessed the implications of the COVID-19 pandemic in order to understand the extent of the damage caused by this crisis. The study also considered what was done with regards to the response by policy makers to the COVID-19 pandemic.

The following historical pandemics were investigated: the Spanish influenza of 1918; the Asian influenza of 1957; and Hong Kong influenza of 1968; Swine influenza of 2009. It also investigated the following epidemics: Ebola Virus Disease (EVD) that has come and gone since 1976; Severe Acute Respiratory Syndrome (SARS) from 2003; and the Middle East Respiratory Syndrome (MERS) virus from 2012 onwards. Lastly, it also included the major Corona Virus Disease of 2019 (COVID-19) pandemic. Some of these pandemics may not have become as well-known as others, but the chaos and fear caused was felt just the same. Due to the fact that these viruses spread in a similar fashion to the COVID-19 pandemic, they have been used as a point of comparison.¹⁷

The research included the following key international sources: websites such as the WHO; Centre for Disease Control and Prevention (CDC); History Channel; *National Geographic*; *Encyclopaedia Britannica*; Food & Drug Administration (FDA); United Nations World Tourism Organisation (UNWTO); and WTTC to name a but few. Journal articles, newspaper articles and books were also used as sources of reference.

This research is of relevance as these epidemics and pandemics are most likely not the last the world will witness. Scientists continue to discover new and ancient diseases and

¹⁷ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: be careful what you wish for', *Tourism Geographies* 22(3), 2020, pp. 577–598.

viruses, a situation which is compounded by global warming and the ice caps melting.¹⁸ Some of these have the potential to be more deadly than what we have experienced with the COVID-19 pandemic. Tourists themselves have been put on the back burner when it comes to pandemic research. Countries have been so focused on money that they tended to forget that people's well-being has been affected not just businesses. In order for a tourist to return to a destination after a disaster they need to feel safe. One way for that to happen is for the recovery efforts to be people-centred and that this dissertation argues is where research needs to align itself.

1.2 Background

The conceptual framework is comprised of a number of elements that require explanation in the context of this study. These include:

1. Tourism policy makers
2. Pandemics and epidemics
3. Pandemic procedures and tourism policies
4. The travel and tourism industry
5. Novel COVID-19 virus
6. Recovery
7. Sustainability
8. Revenge tourism

What follows is an explanation and definition of these elements within the context of this study.

1.2.1 Tourism policy makers

Since tourism is such a major part of the world economy most countries see it as an ideal opportunity for economic growth. Each country then decides on their own policies that benefit and monitor the tourism industry. Governments have different sections or departments that are in charge of and oversee various tourism related aspects such as

¹⁸ C.A. de la Barrera & G. Reyes-Teran, 'Influenza: Forecast for a Pandemic', *Archives of Medical Research* 36, 2005, pp. 628–636.

policy creation and implementation of procedures. The aforementioned is imperative in order for cooperation and coordination between all these sections to be effective.¹⁹ Countries that are broken up into smaller regions, like states or provinces, will also have smaller divisions that will oversee the implementation of the tourism policies for their specific area. Many of the countries in the world will however look at international organizations to help guide their policies. These organisations may include but are not limited to the following: UNWTO; WTTC; International Civil Aviation Organisation (ICAO); and International Air Transport Association (IATA).²⁰

1.2.2 Pandemics and epidemics

An epidemic can be defined as the early stages of a pandemic. An epidemic is the emergence of a disease or virus that has momentarily become highly prevalent. Epidemics can be an outbreak of any type of infectious disease that is confined to one part of the world, for example one country or region,²¹ such as EVD that has been found predominantly in sub-Saharan Africa.²² Epidemics have the potential to become pandemics if they are not controlled. Epidemics may often die out if the method of transfer from one person to the next is not easily available. The advantage with epidemics with viruses that are not as deadly means that those that were infected with the virus are less susceptible to future infection. People's bodies are able to grow antibodies that can effectively fight the virus in the future. Mothers can also pass these antibodies on to their children. Once this happens, people become immune to the disease and are less likely to get dangerously ill in the future. This resilience is known as herd immunity.²³

Pandemic is defined as an outbreak of any type of infectious disease that covers a large geographical area. This outbreak normally affects a significant proportion of the world's population. The timeframe for a pandemic is normally over several months and possibly

¹⁹ Government of South Africa, 2021., <<https://www.gov.za/about-sa/tourism>>, accessed: 8 June 2021.

²⁰ J.M.L. Baptista *et al.*, 'Tourism and Public Policy', *Series v Economic Sciences* 12(61), 2019, pp. 77-86.

²¹ K. Rogers, 2020., <<https://www.britannica.com/science/pandemic>>, accessed: 23 May 2021.

²² Centers for Disease Control and Prevention (CDC), 23 March 2023., <<https://www.cdc.gov/vhf/ebola/index.html>>, accessed: 14 April 2023.

²³ The Editors of Encyclopaedia Britannica, 2023., <<https://www.britannica.com/science/epidemic>>, accessed: 23 June 2023.

even years. Pandemics can spread at an alarming rate especially in a globalised world, where people travel from one part of the planet to the other within a matter of hours. Pandemics often occur in waves where there are points that have high infection rates and there are points that have fewer recorded cases. This will then follow a pattern where the number of cases will increase again. Within human history pandemics have mostly originated from diseases that are transferred from animals to humans otherwise known as zoonotic or avian viruses. These diseases are spread more easily when the infectiousness of the disease is higher and that normally occurs when a zoonotic or avian virus mutates, and human-to-human transmission occurs.²⁴

1.2.3 Pandemic procedures and tourism policies

Pandemic procedure plans refers to a documented proposal that describes an international, national, regional, local or organization's strategy for responding to a pandemic. This plan needs to be supported by operational plans at all levels: regional, provincial, and national. Ideally, this should be a continuous process that requires constant revising. When there is a pandemic outbreak then people in charge of implementing the plan can use this to guide how they respond to the outbreak.²⁵ The WHO is the institution that keeps track of any infectious diseases in the world. If a new virus emerges and turns into an epidemic, it will monitor the spread of the infection. The WHO assigns alert levels to each stage of the spread. When the WHO confirms human-to-human transmission and containment of the virus is deemed impossible, they upgrade the pandemic alert level from a 3 to a level 4. At level 4 a pandemic is not guaranteed, but for world safety it is a sign to all countries to implement their appropriate pandemic procedures to help curb the spread of the infection. These should already be predetermined in their "pandemic preparedness plan".²⁶ In many countries these plans were developed from documents provided by the WHO. According to the WHO these plans normally include three main phases that are broken up into 12 smaller steps. The

²⁴ K. Rogers, 2020., <<https://www.britannica.com/science/pandemic>>, accessed: 23 May 2021.

²⁵ European Centre for Disease Prevention and Control, n.d., <<https://www.ecdc.europa.eu/en/seasonalinfluenza/preparedness/why-pandemic-preparedness>>, accessed: 30 August 2021.

²⁶ K. Rogers, 2020., <<https://www.britannica.com/science/pandemic>>, accessed: 23 May 2021.

main phases are: Phase 1 - Preparation and situation analysis; Phase 2 – developing or updating a plan; Phase 3 – evaluating, finalizing, and disseminating of the plan.²⁷ These suggestions for a pandemic preparedness plan are examined in this research. The WTTC have insisted on government implementing policies that support the travel and tourism sector and keep this industry in mind when they introduce procedures and pandemic plans to curb the spread of a disease.²⁸

1.2.4 Travel and tourism industry

The phrase ‘travel’ has a range of meanings. People travel to meet their needs for survival, such as going to work or to get food and essential services. People also travel for education and for entertainment such as sporting events, visiting friends and relatives (VFR) or for cultural experiences. Travellers make their choice of transport based on what they need and what is available to them. It is not very often that people travel just for the sake of travelling, when a person travels it is most often to fulfil a need. Travel is part of everyday life in a modern and future society and cannot be avoided.²⁹

Tourism on the other hand can be defined as spending time away from your home for at least 24 hours in search of recreation, relaxation, and pleasure, while contributing to the destination’s economy by using the services available.³⁰ When tourism originated, it was initially promoted among the upper-class, because middle-class and lower-class people found it difficult to travel due to the cost of a journey as well as limited leave allowances. In 1841, Thomas Cook capitalised on package tourism thanks to the rail transport revolution which made destinations more accessible. When air travel became popular in the 1970s that reduced the costs significantly and made international travel easier and more accessible to more people.³¹ Travel and tourism have always been seen as a luxury

²⁷ World Health Organization, ‘Global influenza programme: Essential steps for developing or updating a national pandemic influenza preparedness plan’, *Report from a meeting – by the World Health Organization*, 5 – 7 December 2017, Accra, Ghana.

²⁸ World Travel and Tourism Council, 18 February 2021, <<https://wttc.org/COVID-19/Government-Policies>>, accessed: 23 May 2021.

²⁹ J.L. Schofer, 2017, <<https://www.britannica.com/topic/mass-transit>>, accessed: 5 July 2021.

³⁰ J. Walton, 2020, <<https://www.britannica.com/topic/tourism>>, accessed: 5 July 2021.

³¹ M. Von Lünke-Schwarz, 2013., <<https://www.dw.com/en/a-brief-history-of-travel-from-elite-hobby-to-mass-tourism/a-16996047>>, accessed: 5 July 2021.

for the middle to upper class, and the urban population from predominantly Western countries. However, pandemics have proven to many that travel, and tourism are a necessity for people's mental health and wellbeing, making it vital in order to meet all required needs.³²

Travel and tourism are two of the world's largest sectors that contribute to socio-economic development and job creation, and also play a very important role in poverty reduction in many developing countries.³³ The travel and tourism sector faced and still faces multiple challenges due to the COVID-19 pandemic. It is one of the outbreaks that has affected the world the worst according to the WTTC.³⁴ Travel and tourism are the key focus of this study.

1.2.5 Novel COVID-19 virus

The word 'novel' originated from the word 'novelty' meaning, something that is new that has not been detected or reported before. In this case, it means that SARS-CoV-2 is a new virus that had not been identified in humans until the outbreak in December 2019 that allegedly started in Wuhan, People's Republic of China.³⁵

In order to understand what the COVID-19 pandemic is, one needs to understand the terminology that was used from the start of the pandemic. SARS-CoV-2 is the virus that causes the illness known as coronavirus disease of 2019 (COVID-19). This disease is caused by a new coronavirus which is the third coronavirus to infect humans. The first was SARS-CoV that caused SARS, and the second was MERS-CoV that resulted in MERS. The exact origin of this virus is still not clear, but the WHO released a report that stated that SARS-CoV-2 most likely originated in an animal, such as a bat or pangolin,

³² J. Wang & L. Xia, 'Revenge travel: nostalgia and desire for leisure travel post COVID-19', *Journal of Travel & Tourism Marketing* 38(9), 2021, pp 935-955.

³³ A. Khan *et al.*, 'Tourism and Development in Developing Economies: A Policy Implication Perspective', *Sustainability* 12(4), 2020, pp. 1618–1637.

³⁴ World Travel and Tourism Council, 7 October 2020, '100 Million Jobs Recovery Plan Final Proposal' at the Saudi Arabia 2020 Riyadh summit G20, <<https://wttc.org/COVID-19/G20-Recovery-Plan>>, accessed: 5 July 2021.

³⁵ A. Billingsley, 2020, <<https://www.goodrx.com/blog/what-does-novel-coronavirus-mean-science-medical-definition/>>, accessed: 07 June 2021.

and it is extremely unlikely that it originated in a laboratory (despite repeated conspiracy allegations).³⁶

1.2.6 Recovery

According to the *Oxford Dictionary* a broad meaning of recovery is “the process of improving or becoming stronger again”.³⁷ In the context of this research, the focus is on the recovery of the tourism industry from a pandemic. The road to recovery is often very uncertain as there are normally a vast number of different challenges that the tourism industry is facing simultaneously. This research investigates the challenges and studies the methods that have been developed to help the industry recover. The hope is that the tourism industry adapts to the changes and in the end becomes stronger and more sustainable. Recovery has been looked at in terms of what the tourism industry can positively evolve into after a pandemic and not necessarily return to exactly what it was like before the pandemic. There were many changes in the tourism industry during lockdowns, but these innovations such as digitisation do not need to be ‘recovered from’, but rather should be integrated into the industry’s recovery.³⁸

1.2.7 Sustainability

The most well-known meaning of sustainability is to “use and manage a resource in a sparing and strategic way so that one does not cause damage, and that we can continue to use it in the future”.³⁹ With regards to the tourism industry, it has long been an aim to achieve a more sustainable future for the sector. According to the WTTC: “Social and cultural sustainability ensures that development increases people's control over their lives, is compatible with the culture and values of people affected by it and maintains and

³⁶ World Health Organization, 2021., <<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19>>, accessed: 8 June 2021.

³⁷ Oxford Dictionary, n.d., <<https://www.oxfordlearnersdictionaries.com/definition/english/recovery?q=recovery>>, accessed: 8 June 2021.

³⁸ World Travel And Tourism Council, ‘To Recovery & Beyond: The Future of Travel & Tourism in the Wake of COVID-19’, *Conference report* – Conference hosted by the World Travel & Tourism Council and Oliver Wyman - The Future of Travel & Tourism, September 2020, Saudi Arabia.

³⁹ Longman Dictionary, n.d., <https://www.ldoceonline.com/dictionary/sustainable#sustainable_3>, accessed: 8 June 2021; G. Bertella, ‘Re-thinking sustainability and food in tourism’, *Annals of Tourism Research* 84(103005), 2020, pp. 1-3.

strengthens community identity”.⁴⁰ According to UNESCO, in order to achieve true sustainability, both cultural diversity and natural biodiversity need to be safeguarded. The COVID-19 pandemic started an exponential growth in digitisation and innovation in the tourism industry. The tourism industry can use that momentum and growth to further strengthen the efforts in achieving the UN Sustainable Development Goals (SDGs), more specifically Goal 11 which aims to “Make cities and human settlements inclusive, safe, resilient and sustainable”;⁴¹ as well as Target 4 which “Strengthens efforts to protect and safeguard the world’s cultural and natural heritage”.⁴² Tourism as an industry can play a major role in working hand-in-hand helping other industries achieve these goals by bringing in the much-needed global trade and income.⁴³

1.2.8 Revenge tourism

Revenge tourism is a new concept arising from the recent COVID-19 pandemic. During the first wave of the pandemic, countries went into lockdown meaning people were not allowed to leave their homes unless they were classified as an essential or frontline worker. People spent months cooped up in their houses or apartments, and this took a toll on people’s mental, psychological, and physical health and became known as pandemic fatigue. When people could finally leave their homes and travel, they wanted to make up for lost time. They travelled even if it was to nearby accommodation, as long as it was not their own home. This started the trend known as revenge tourism.⁴⁴ Revenge tourism has quickly emerged as a dominant tourism sector indicating the return of global tourism. This type of tourism is characterised as tourists spending more money

⁴⁰ D. Weavera *et al.*, ‘Facilitating sustainable tourism by endogenization: China as exemplar’, *Annals of Tourism Research* 81(102890), 2020, pp. 1-13; Government of South Africa, 2021., <<https://www.gov.za/about-sa/tourism>>, accessed: 8 June 2021; J. Tribe *et al.*, ‘Paradigms in tourism research: a trialogue’, *Tourism Recreation Research* 30(1), 2015, pp. 28-47.

⁴¹ United Nations Department of Economic and Social Affairs, n.d., <<https://sdgs.un.org/goals/goal11>>, accessed: 12 June 2023.

⁴² United Nations Department of Economic and Social Affairs, n.d., <<https://sdgs.un.org/goals/goal11>>, accessed: 12 June 2023.

⁴³ F. Jing, 2022., <<https://bangkok.unesco.org/content/sustainable-tourism-post-pandemic-era-lessons-learnt-new-directions-unesco>>, accessed: 18 June 2023.

⁴⁴ U. Zaman *et al.*, ‘Sustainable or a Butterfly Effect in Global Tourism? Nexus of Pandemic Fatigue, COVID-19-Branded Destination Safety, Travel Stimulus Incentives, and Post-Pandemic Revenge Travel’, *Sustainability* 13(22), 2021, p.12834.

and staying for longer periods of time.⁴⁵ This touristic behaviour may not necessarily continue in this fashion, at some point this ‘fear of missing out’ or ‘you only live once’ tourism may start to taper off as people’s savings and leisure time start to dissipate.⁴⁶ For the purpose of this study, revenge tourism is not considered as a form of sustainable tourism as it is new and this type of tourism can be perceived as a type of temporary mass tourism or over-tourism.

1.3 Research Methodology and Sources

1.3.1 Methodology

The proposed research has a mixed method approach focusing predominantly on qualitative research with elements of quantitative research. Although the main approach is qualitative, quantitative components are present by analysing and making use of statistical information to corroborate the findings. These statistics were sourced from academic articles and on websites such as: World Data, World Economic Uncertainty Index, World Bank, and the International Disasters Database (EM_DAT) amongst others. These statistics added depth and insight in the findings enhanced the validity and credibility of the study.⁴⁷

This research is essentially a policy review which aims to scrutinise international and national policy makers and consider what plans they already have in place when it comes to like pandemics and epidemics outbreaks. The research also looks at various organisations that give advice and see how involved they are in the policy planning of governments, and particular in the context of crises such pandemics and epidemics.

For the purpose of this research pandemic procedure plans that are discussed will focus on measures that have either a direct or an indirect influence on the tourism industry.

⁴⁵ J. Wang & L. Xia, ‘Revenge travel: nostalgia and desire for leisure travel post COVID-19’, *Journal of Travel & Tourism Marketing* 38(9), 2021, pp 935-955.

⁴⁶ R. Vogler, ‘Revenge and catch-up travel or degrowth? Debating tourism Post COVID-19’. *Annals of Tourism Research* 93, 2022, p.103272.

⁴⁷ K. Maree, *First steps in research*, p. 38 – 39.

These procedures and policies are ones that have been implemented as a result of the above-mentioned pandemics and epidemics.

1.3.2 Research Strategy

The research strategy used is a non-interactive design strategy. This means that it is a concept analysis and historical analysis of the previous pandemics.⁴⁸ This research is essentially a literature-based investigation that consists of various comparative dimensions. However, there are no human participants involved. Throughout the research the main data collection technique used was document analysis. This qualitative data was primarily collected from government publications, international organizations, articles, reports, conferences, archival documentation, and policy documents. The research was guided by a realist and determinism ontological assumption, meaning that the research assumed that social reality can be understood from an external point of view and that reality is objective.⁴⁹ It has been assumed that humans respond mechanically to their environment and will resort to panicking easily when others around them start to panic.⁵⁰

1.3.3 Data Presentation

When it comes to the quantitative aspects of the research such as statistics, this data is represented in tables and graphs. Amongst others, this helps to show the comparison between the impacts of the different diseases. Graphs and tables make comparisons between different pandemics more apparent. Photographs from different pandemics are also used to show similarities and differences in how pandemics have been dealt with since the 20th century.⁵¹

1.3.4 Challenges

One of the biggest challenges in conducting this research is that there was a difficulty in accessing some of the necessary documentation. This is due to the fact that historically

⁴⁸ K. Hannam & D. Knox, *Understanding Tourism: A Critical Introduction*, p.178–179.

⁴⁹ S.B. Merriam, *Qualitative research and case study applications in education*, p.112–113.

⁵⁰ J. Tribe *et al.*, 'Paradigms in tourism research: a dialogue', *Tourism Recreation Research* 30(1), 2015, pp. 28-47.

⁵¹ S.B. Merriam, *Qualitative research and case study applications in education*, p.112-113.

tourism has been a fairly under-researched field especially when it comes to pandemics. There has generally been a relative neglect in tourism research in the early twentieth century since it was still a relatively new field of research and was not deemed relevant during that time period.⁵²

1.4 Chapter outline

This dissertation comprises of six chapters. The first chapter has presented a general overview of the research. This included an introduction and rationale for the study and also discussed the following: the research problem; purpose of the research; and defined the main concepts. The research design and methodology that has been adopted was also examined, while the limitations to the study were also flagged.

Chapter two presents an overview of the literature that has dominated in this field of research. This is divided into four main sections: Overview of Literature; Tourism and Disasters; and Tourism and Disease. The last part of the literature review focuses on Tourism and Pandemics and draws in some comparison of the different pandemics that the world has experienced over time.

Chapter three considers the pandemics that occurred in the twentieth century. This chapter examines how these pandemics affected the world and, more specifically, the travel and tourism industry. This chapter considers policies that were put in place when a pandemic occurred and how the world used these policies to essentially recover from these various crises.

The fourth chapter focuses on pandemics from the twenty-first century until the recent Coronavirus pandemic. It considers policies that were put in place when a pandemic occurred and observes how this affected the world. It looks at how the travel and tourism industries 'returned' to 'normal' after these pandemics.

⁵² J. Rosselló *et al.*, 'The effects of natural disasters on international tourism: A global analysis', *Tourism Management* 79(104080), 2020, pp. 1–10.

The penultimate chapter looks at the possible futures that the tourism industry could experience. It sets out to understand how the global tourism industry can recover and become more sustainable.

The final chapter comprises of a reflection on the findings in the research. This is where the conclusions will be drawn about the study. Conclusionary comparisons are made on how these pandemics were handled. With recommendations for additional research.

Chapter 2: Literature Review

As indicated, disasters and diseases have played a large role in how the tourism industry has developed over the last two centuries. A variety of different crises and disasters affecting tourism have been studied by a range of scholars across sections of the world. The analysis of the effects and changes have been selective, sometimes it has had a major impact and other times a minimal influence.⁵³

This chapter reviews some of the related literature and has been divided into four separate sections. The first reviews tourism and disasters in general; the second and penultimate section looks at research on how diseases have affected tourism; and the final section focuses on tourism and the major pandemics that have affected it which is directly relate to the study at hand.

2.1 Tourism and Disasters

Once a natural disaster hits a destination it is all hands-on deck trying to rebuild the destination to its former status. Often in the past, the idea of destination image was an afterthought.⁵⁴ How tourists perceive a destination and the safety of it is almost as important as the destination's attractions itself.⁵⁵ When it comes to tourism during a disaster, researchers have begun to investigate the different types of disaster events and the decision-making process of the tourist. S. Sönmez and his fellow authors argue that getting tourists back to a destination is largely dependent on their "perception of how safe the location" will be.⁵⁶ Other research has investigated readiness plans, recovery plans, and policies to be put in place for certain regions or cities in the event of a natural disaster.

⁵³ C.M. Hall, 'Biological invasion, biosecurity, tourism, and globalisation', in D. Timothy (ed.), *Handbook of globalization and tourism*, p. 114–125.

⁵⁴ L.V. Bennekom, 'Aligning destination image, sport event image and image fit: An exploration of the interrelationship between cognitive and affective images among spectators of Dutch Running Events', masters' thesis, Universiteit Utrecht, 2015.

⁵⁵ G. Ariya *et al.*, 'Tourism destination attractiveness as perceived by tourists visiting Lake Nakuru National Park, Kenya', *International Journal of Research in Tourism and Hospitality* 3(4), 2017, pp. 1-13.

⁵⁶ S. Sönmez *et al.*, 'Tourism in crisis: Managing the effects of terrorism', *Journal of Travel Research* 38, 1999, pp. 13–18.

In B. Faulkner's 2001 article, "Towards a framework for tourism disaster management",⁵⁷ he pointed to the fact that all tourism destinations will inevitably face one, if not many, disasters at some point in time. Keeping this in mind he went on to criticise that not many destinations have an effective "disaster management plan"⁵⁸ that should help alleviate some of the recovery struggles. Faulkner claims that at the time there was limited research being carried out with regards to this aspect. He devised a model that can be used to analyse and develop tourism disaster management strategies, by providing a set of prerequisites and principals of effective tourism disaster management planning.⁵⁹

In 2001 M. Mazzocchi and A. Montini studied the effects of an earthquake on tourism in Italy and wrote an article titled "Earthquake effects on tourism in central Italy".⁶⁰ A year later in 2002 J. Huang and J.C.H. Min also studied the effects of an earthquake on tourism, but they focused on Taiwan in an article titled "Earthquake devastation and recovery in tourism: The Taiwan case".⁶¹ Both earthquakes caused substantial damage ranging between a 6 and a 7.3 on the Richter scale respectively. Both research articles found that the biggest damage caused by the earthquakes was to the international tourism sector, where there was a drastic decline in tourists visiting the regions. M. Mazzocchi and A. Montini's research highlighted the fact that the media coverage of the damage often focused heavily on the tourism spots which made it harder for governments to advertise or promote the area as "safe".⁶² Often tourist's perceptions of their safety is the reason why they feel it better not to travel to an area. J. Huang and J.C.H. Min went further to evaluate whether the disaster recovery efforts had worked to completely revive the tourism industry after an earthquake disaster. Their findings were that even after 11

⁵⁷ B. Faulkner, 'Towards a framework for tourism disaster management', *Tourism Management* 22, 2001, pp. 135–147.

⁵⁸ B. Faulkner, 'Towards a framework for tourism disaster management', *Tourism Management* 22, 2001, p. 138.

⁵⁹ B. Faulkner, 'Towards a framework for tourism disaster management', *Tourism Management* 22, 2001, pp. 135–147.

⁶⁰ M. Mazzocchi & A. Montini, 'Earthquake effects on tourism in central Italy', *Annals of Tourism Research* 28, 2001, pp. 1031–1046

⁶¹ J. Huang, & J.C.H. Min, 'Earthquake devastation and recovery in tourism: The taiwan case', *Tourism Management* 23, 2002, pp. 145–154.

⁶² M. Mazzocchi & A. Montini, 'Earthquake effects on tourism in central Italy', *Annals of Tourism Research* 28, 2001, p. 1040.

months Taiwan's tourism industry did not fully recover and was recovering at a slower pace than expected. It was estimated that it would take years to fully recover. They concluded that the government's policies and attitude played an important role in this recovery process. Without conscious effort from the Taiwanese government to enhance awareness, they argued that the tourism destination would have deteriorated even further. They claimed that risk perception played a big role in tourists not returning to Taiwan as fast as expected, even though damage and devastation was limited to the central region, the whole country was still seen as "dangerous".⁶³

L. Cioccio and E.J. Michael in turn have similarly argued that a collective approach is needed in governments and real-world operators to increase recovery efforts in their 2007 article "Hazard or disaster: Tourism management for the inevitable in Northeast Victoria".⁶⁴ They set out to explore a variety of strategic responses developed by communities and businesses to manage and recover from natural disasters. They highlight the fact that every new crisis will further add steps to the joint community hazard management response plan. During their research they discovered that there is little consideration with regards to how small tourism operators deal with the effects of disasters. This article studied how Northeast Victoria in Australia prepared for and recovered from the 2003 bushfires. Their findings were that Australia was unprepared to "deal with"⁶⁵ such a disaster. They also found that tourism operators were resilient in their own recovery efforts, and that this resilience could stand as a good lesson to other members of the tourism sector.⁶⁶

⁶³ M. Mazzocchi & A. Montini, 'Earthquake effects on tourism in central Italy', *Annals of Tourism Research* 28, 2001, pp. 1031–1046; J. Huang, & J.C.H. Min, 'Earthquake devastation and recovery in tourism: The taiwan case', *Tourism Management* 23, 2002, pp. 145–154.

⁶⁴ L. Cioccio & E.J. Michael, 'Hazard or disaster: Tourism management for the inevitable in Northeast victoria', *Tourism Management* 28(1), 2007, pp. 1–11.

⁶⁵ L. Cioccio & E.J. Michael, 'Hazard or disaster: Tourism management for the inevitable in Northeast victoria', *Tourism Management* 28(1), 2007, p. 1.

⁶⁶ L. Cioccio & E.J. Michael, 'Hazard or disaster: Tourism management for the inevitable in Northeast victoria', *Tourism Management* 28(1), 2007, pp. 1–11.

In 2008, an article by Advocate Professor B.W. Ritchie entitled “Tourism disaster planning and management: From response and recovery to reduction and readiness”,⁶⁷ he made mention of the fact that there was an increasing number of natural hazards and reiterated the fact that there has not been sufficient research conducted on tourism disaster management and planning. Ritchie noted that the research that had been conducted focused on “reactive response”⁶⁸ towards recovery efforts, whereas little attention had been paid to the vital aspects which were “reduction and readiness”.⁶⁹ Ritchie’s research aimed to examine possible deficiencies and “future directions”⁷⁰ for research in this field. He argued that researchers needed to use the broader framework of different hazards and natural disasters to help develop planning procedures. By using previous research and involving other disciplines such as education, communication, and sociology, he believed one could have a better understanding of tourism disaster planning and readiness. Researchers could then develop more suitable policies and initiatives that would be more effective.⁷¹

B.W. Ritchie continued to build on his work in 2014 by writing another article with fellow authors M. Sharifpour, G. Walters, and C. Winter, titled “Investigating the role of prior knowledge in tourist decision making: A structural equation model of risk perceptions and information search”.⁷² The research again emphasized the importance of “risk perceptions”⁷³ in tourism. It investigated relationships amongst tourists’ risk perceptions and various types of their “prior knowledge”.⁷⁴ They clearly distinguished between

⁶⁷ B.W. Ritchie, ‘Tourism disaster planning and management: From response and recovery to reduction and readiness’, *Current Issues in Tourism* 11(4), 2008, pp. 315–348.

⁶⁸ B.W. Ritchie, ‘Tourism disaster planning and management: From response and recovery to reduction and readiness’, *Current Issues in Tourism* 11(4), 2008, p. 316.

⁶⁹ B.W. Ritchie, ‘Tourism disaster planning and management: From response and recovery to reduction and readiness’, *Current Issues in Tourism* 11(4), 2008, p. 315.

⁷⁰ B.W. Ritchie, ‘Tourism disaster planning and management: From response and recovery to reduction and readiness’, *Current Issues in Tourism* 11(4), 2008, p. 315

⁷¹ B.W. Ritchie, ‘Tourism disaster planning and management: From response and recovery to reduction and readiness’, *Current Issues in Tourism* 11(4), 2008, pp. 315–348.

⁷² M. Sharifpour *et al.*, ‘Investigating the role of prior knowledge in tourist decision making: A structural equation model of risk perceptions and information search’, *Journal of Travel Research* 53(3), 2014, pp. 307–322.

⁷³ M. Sharifpour *et al.*, ‘Investigating the role of prior knowledge in tourist decision making: A structural equation model of risk perceptions and information search’, *Journal of Travel Research* 53(3), 2014, p. 307.

⁷⁴ M. Sharifpour *et al.*, ‘Investigating the role of prior knowledge in tourist decision making: A structural equation model of risk perceptions and information search’, *Journal of Travel Research* 53(3), 2014, p. 307.

different types of knowledge for example, subjective and objective knowledge. They continued to explain how each type of prior knowledge influences whether or not a tourist will travel to a destination. They discussed how “objective knowledge” does not have such a large impact on tourists, whereas “subjective knowledge” played a major role in influencing tourists’ willingness to travel. Another valid point made was that “prior knowledge”⁷⁵ played a role with risk perceptions when determining which information sources someone uses. They concluded that tourists’ knowledge plays a major role in destination recovery post a disaster.⁷⁶

In a qualitative study by G. Wachinger, O. Renn, C. Begg, and C. Kuhlicke, they in part contradict Mazzocchi and Montini’s opinion on the role of media coverage and risk perception in their 2012 article: “The risk perception paradox—implications for governance and communication of natural hazards”.⁷⁷ This study investigated risk perceptions of various natural hazards. Their study revealed that:

Cultural and individual factors such as media coverage, age, gender, education, income, social status, and others do not play such an important role but act as mediators or amplifiers of the main causal connections between experience, trust, perception, and preparedness to take protective actions.⁷⁸

This study revealed that personal experience of a hazard and trust or lack thereof in authorities have the most substantial impact on risk perception.⁷⁹

In a case study of New Zealand researchers S. Becken and K. Hughey investigated the linkage between the tourism industry and disaster risk reduction and management in their 2013 article “Linking tourism into emergency management structures to enhance disaster

⁷⁵ M. Sharifpour *et al.*, ‘Investigating the role of prior knowledge in tourist decision making: A structural equation model of risk perceptions and information search’, *Journal of Travel Research* 53(3), 2014, p. 308.

⁷⁶ M. Sharifpour *et al.*, ‘Investigating the role of prior knowledge in tourist decision making: A structural equation model of risk perceptions and information search’, *Journal of Travel Research* 53(3), 2014, pp. 307–322.

⁷⁷ G. Wachinger *et al.*, ‘The risk perception paradox—implications for governance and communication of natural hazards’, *Risk Analysis* 33, 2012, pp. 1049–1065.

⁷⁸ G. Wachinger *et al.*, ‘The risk perception paradox—implications for governance and communication of natural hazards’, *Risk Analysis* 33, 2012, p. 1049.

⁷⁹ G. Wachinger *et al.*, ‘The risk perception paradox—implications for governance and communication of natural hazards’, *Risk Analysis* 33, 2012, pp. 1049–1065.

risk reduction”.⁸⁰ These researchers made special note of how tourism is currently poorly considered in existing disaster management planning since there is little collaboration between the various sectors. They went on to identify a variety of gaps in planning for the Four ‘R’s - Reduction, Readiness, Response and Recovery. Becken and Hughey’s aim was to help New Zealand, as well as other tourism destinations, to create a more sustainable industry. Important aspects of their research were identifying the missing linkage between these industries and going on to provide evidence of what parts of disaster risk reduction plays a role for tourism stakeholders. They then went a step further to make proposals on how to reduce the risk for tourism.⁸¹

The aim of the 2014 article “When disaster strikes: The Thai floods of 2011 and tourism industry response and resilience”⁸² by Z. Ghaderi, A.P. Mat Som, and J.C. Henderson conducted specific research around floods as a natural disaster. Their study was on the floods that occurred in parts of Thailand back in 2011. Their focus was on stakeholders’ responses to the devastation and analysed their resilience to disasters such as floods. The research showed that even though the disaster was widespread and extremely damaging, the recovery was prompt. Their results proved that with adequate disaster readiness plans in place, a destination can recover relatively quickly, provided the public and private sector work well together. Researchers also noted that organizations that did not follow an official planned approach to disaster management revealed inadequacies. This evidence solidifies the notion that a more proactive approach to planning needs to be observed and these plans need to be comprehensive and include tourism in their recovery plans.⁸³

The concern about risk perceptions is also apparent in another study by C.W. Trumbo, L. Peek, M.A. Meyer, H.L. Marlatt, E. Gruntfest, B.D. McNoldy and W.H. Schubert’s 2016

⁸⁰ S. Becken & K. Hughey, ‘Linking tourism into emergency management structures to enhance disaster risk reduction’, *Tourism Management* 36, 2013, pp. 77–85.

⁸¹ S. Becken & K. Hughey, ‘Linking tourism into emergency management structures to enhance disaster risk reduction’, *Tourism Management* 36, 2013, pp. 77–85.

⁸² Z. Ghaderi *et al.*, ‘When disaster strikes: The Thai floods of 2011 and tourism industry response and resilience’, *Asia Pacific Journal of Tourism Research* 20, 2014, pp. 399–415.

⁸³ Z. Ghaderi *et al.*, ‘When disaster strikes: The Thai floods of 2011 and tourism industry response and resilience’, *Asia Pacific Journal of Tourism Research* 20, 2014, pp. 399–415.

research titled “A cognitive-affective scale for hurricane risk perception”.⁸⁴ This study explored tourism and disasters and analysed risk perception with regards to hurricanes. Their aim was to develop a measure of “hurricane risk perception”.⁸⁵ This research was done using surveys that involved open-ended responses from participants. The study that was conducted is useful for stakeholders that are in the development stages of preparedness plans as once stakeholders can fully understand the tourists’ risk perceptions and the subsequent influence this has on travel, then the stakeholders are able to develop a more well-rounded plan. Knowing that different population groups have different views regarding disasters can help stakeholders decide how to better advertise destinations to different tourist groups. For this specific study, the research focused on 629 participants all within a 15-mile radius of a United States of America coastal region between Wilmington and Brownsville so a more widespread study could further develop a more holistic view. This article shows that for a better understanding of people’s viewpoints, one needs to look at a more diverse sample group.⁸⁶

D. Rucinska and M. Lechowicz conducted research in 2014 and produced an article “Natural hazard and disaster tourism”,⁸⁷ that investigated different disasters including two kinds of tsunami, two earthquakes, a hurricane and a volcanic eruption. While conducting this research they investigated how many tourists visited each location before the disaster, the year of the disaster and subsequent years post disaster. A relevant point made was that tourism to devastated areas drops during a disaster, but it never drops all the way to zero. These researchers hypothesized that tourists are actually attracted to “natural hazards and disasters”⁸⁸ and the “misery”⁸⁹ of others. They argue that this type

⁸⁴ C.W. Trumbo *et al.*, ‘A cognitive-affective scale for hurricane risk perception’, *Risk Analysis* 36 (12), 2016, pp. 2233–2246.

⁸⁵ C.W. Trumbo *et al.*, ‘A cognitive-affective scale for hurricane risk perception’, *Risk Analysis* 36 (12), 2016, p. 2233.

⁸⁶ C.W. Trumbo *et al.*, ‘A cognitive-affective scale for hurricane risk perception’, *Risk Analysis* 36 (12), 2016, pp. 2233–2246.

⁸⁷ D. Rucinska & M. Lechowicz, ‘Natural hazard and disaster tourism’, *Miscellanea Geographica - Regional Studies on Development* 18(1), 2014, pp. 17–25.

⁸⁸ D. Rucinska & M. Lechowicz, ‘Natural hazard and disaster tourism’, *Miscellanea Geographica - Regional Studies on Development* 18(1), 2014, pp. 24.

⁸⁹ D. Rucinska & M. Lechowicz, ‘Natural hazard and disaster tourism’, *Miscellanea Geographica - Regional Studies on Development* 18(1), 2014, pp. 24.

of tourism is not a new concept as the niche dark tourism has been around for a while. They also investigated tourists' motivations and information dispersion through education. Their research showed that different natural hazards affect the tourism industry differently.⁹⁰

Rucinska published another article on this topic in 2016 entitled: "Natural disaster tourism as type of dark tourism".⁹¹ In this literature study he identified and examined three different groups of natural hazard tourism: tourists that are interested in the natural hazard; tourists that are attracted in landscape deformation and emotions shortly after the event; and tourists fascinated by historic places long after an event. One part of his study that proved important is the opportunity for information about the disaster and excursion potential to be disseminated quickly. This type of tourism, although important to help a region recover from a hazardous event, is not linked to sustainable tourism since sustainable tourism is supposed to be long term while this type of dark tourism is based on certain events which are not necessarily long term.⁹²

In a 2017 article titled "Structural breaks in international tourism demand: Are they caused by crises or disasters?"⁹³ by S. Cro and A.M. Martins, the decline of tourism during disasters is highlighted. In their research they focus on the very important distinction between a "crisis"⁹⁴ and a "disaster".⁹⁵ They claim that both aspects have negative consequences however, the severity of each event is important to note as it will influence the countermeasures that will need to be taken. They used literature from other

⁹⁰ D. Rucinska & M. Lechowicz, 'Natural hazard and disaster tourism', *Miscellanea Geographica - Regional Studies on Development* 18(1), 2014, pp. 17–25.

⁹¹ D. Rucinska, 'Natural disaster tourism as type of dark tourism', *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* 10, 2016, pp. 1385–1389.

⁹² D. Rucinska, 'Natural disaster tourism as type of dark tourism', *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering* 10, 2016, pp. 1385–1389.

⁹³ S. Cro & A.M. Martins, 'Structural breaks in international tourism demand: Are they caused by crises or disasters?' *Tourism Management* 63, 2017, pp. 3–9.

⁹⁴ S. Cro & A.M. Martins, 'Structural breaks in international tourism demand: Are they caused by crises or disasters?' *Tourism Management* 63, 2017, p. 3.

⁹⁵ S. Cro & A.M. Martins, 'Structural breaks in international tourism demand: Are they caused by crises or disasters?' *Tourism Management* 63, 2017, p. 3.

researchers to formulate three important definitions: a “crisis”⁹⁶ is “a situation which is harmful and disruptive, of high magnitude and is outside the typical operating framework”;⁹⁷ whereas a “disaster”⁹⁸ is “an event, natural or man-made, sudden or progressive, which impacts with such severity that the affected community has to respond by taking exceptional measures”.⁹⁹ Furthermore, they defined a “tourism crisis”¹⁰⁰ as “a disaster, whether natural or man-made, that has the potential to totally disrupt the tourism industry”.¹⁰¹ The article concludes that with these definitions in mind, tourism stakeholders can look at different disaster readiness plans for the different levels and come up with effective strategies to recover.¹⁰²

Similarly, an article titled “Analysis of optimal timing of tourism demand recovery policies from natural disaster using the contingent behavior method”¹⁰³ was published in 2018 by researcher T. Okuyama. Here he investigated and analysed tourism recovery policies with relation to natural disasters. His questionnaires were used as a way to study tourists’ willingness to travel during a hypothetical disaster. His results found that tourists are more willing to travel if certain conditions were met: one week after the disaster there needs to be an announcement indicating safety; then the destination needs to take a step further and implement the event information policy; visitor information announcements need to be made; then the final step to attract new visitors would be to have a price discount policy. Okuyama further investigated why some people would still not travel even with discounts and their responses involved anxiety about being infected and distrust towards

⁹⁶ S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, p. 3.

⁹⁷ S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, p. 4.

⁹⁸ S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, p. 3.

⁹⁹ S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, p. 4.

¹⁰⁰ S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, p. 5.

¹⁰¹ S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, p. 4.

¹⁰² S. Cro & A.M. Martins, ‘Structural breaks in international tourism demand: Are they caused by crises or disasters?’ *Tourism Management* 63, 2017, pp. 3–9.

¹⁰³ T. Okuyama, ‘Analysis of optimal timing of tourism demand recovery policies from natural disaster using the contingent behavior method’, *Tourism Management* 64, 2018, pp. 37–54.

governments that provided the safety information. Okuyama indicates that his study was useful because the methods could be used in cases of both natural disasters and disease outbreaks.¹⁰⁴

In 2019 researchers X. Jin, M. Qu and J. Bao published an article titled “Impact of crisis events on Chinese outbound tourist flow: A framework for post-events growth”¹⁰⁵ in which they conducted two separate studies both looking at international tourism being extremely vulnerable to external political, economic, and environmental disastrous events. The first study examined impacts of a range of political, economic, and environmental events on international tourism from 2005 to 2017. The focus of their research was travel from China to Japan and South Korea. The second study was a review of the factors that either intensify or alleviate the negative impacts of crisis events on the tourism industry, as well as factors contributing to post-disaster tourism recovery. Their results show that each event will have a different level of impact. In conclusion, the researchers discuss the influence of the abovementioned factors in providing references for relevant stakeholders to create strategic planning, policy making and recovery plans.¹⁰⁶

V. Filimonau and D. De Coteau raise some concerning arguments in that tourism stakeholders in Grenada in the Caribbean are aware of the problems regarding potential damage natural disasters can inflict on the region’s tourism destinations, but they fail to develop applicable procedures to build destination resilience against these “inevitable”¹⁰⁷ disasters. Their 2020 article “Tourism resilience in the context of integrated destination and disaster management”¹⁰⁸ discusses how disaster management principles should be incorporated into the collaborative destination management plans to help build resilience

¹⁰⁴ T. Okuyama, ‘Analysis of optimal timing of tourism demand recovery policies from natural disaster using the contingent behavior method’, *Tourism Management* 64, 2018, pp. 37–54.

¹⁰⁵ X. Jin *et al.*, ‘Impact of crisis events on Chinese outbound tourist flow: A framework for post-events growth’, *Tourism Management* 74, 2019, pp. 334–344.

¹⁰⁶ X. Jin *et al.*, ‘Impact of crisis events on Chinese outbound tourist flow: A framework for post-events growth’, *Tourism Management* 74, 2019, pp. 334–344.

¹⁰⁷ V. Filimonau & D. De Coteau, ‘Tourism resilience in the context of integrated destination and disaster management’, *International Journal of Tourism Research* 22(2), 2020, p. 203.

¹⁰⁸ V. Filimonau & D. De Coteau, ‘Tourism resilience in the context of integrated destination and disaster management’, *International Journal of Tourism Research* 22(2), 2020, pp. 202–222.

against natural disasters. This article proposes a framework that tourism stakeholders can use to plan more efficiently for natural disasters.¹⁰⁹

A more recent publication, “The effects of natural disasters on international tourism: A global analysis”¹¹⁰ by J. Rosselló, M. Santana-Gallego and S. Becken published in 2020 indicates that tourism is moulded by many different influences, including ones that have no immediate connection with the tourism sector. Natural disasters are such influences since they play a major role on individuals which can alter tourism substantially. They point out that unfortunately there is a research gap when it comes to figuring out the nature and the extent of disaster impacts on tourism. Their research indicates that different types of events alter tourist flows to varying degrees. These researchers had similar findings to Rucinska and Lechowicz who found that in general the impacts are negative with tourism dropping after a disaster. There were some positive effects found in some destinations and they argue that finding a balance between disaster events and tourism is needed to aid in recovery, reconstruction and marketing.¹¹¹

A concern about spa tourism consistency is apparent in a 2021 case study about Yugoslavia: “Spa Tourism Statistics in the Kingdom of Yugoslavia”.¹¹² The authors, J. Radović-Stojanović and G. Dragana, argue that on the heels of a global shut down, spa tourism took a dive as did all forms of tourism. The authors reflect on spa tourism during the period from 1926 to 1940 and contend that spa tourism developed significantly between the two world wars. The article indicates the level of the development of spas and spa tourism in the region during this time period by looking at statistical data. The authors point out that the financial effects of spa tourism is great and should be further investigated.¹¹³

¹⁰⁹ V. Filimonau & D. De Coteau, ‘Tourism resilience in the context of integrated destination and disaster management’, *International Journal of Tourism Research* 22(2), 2020, pp. 202-222.

¹¹⁰ J. Rosselló *et al.*, ‘The effects of natural disasters on international tourism: A global analysis’, *Tourism management* 79, 2020, pp.1-10.

¹¹¹ J. Rosselló *et al.*, ‘The effects of natural disasters on international tourism: A global analysis’, *Tourism management* 79, 2020, pp.1-10.

¹¹² J. Radović-Stojanović & G. Dragana, ‘Spa Tourism Statistics in the Kingdom of Yugoslavia’, *Менаџмент у хотелијерству и туризму* 9(2), 2021. pp. 107–118.

¹¹³ J. Radović-Stojanović & G. Dragana, ‘Spa Tourism Statistics in the Kingdom of Yugoslavia’, *Менаџмент у хотелијерству и туризму* 9(2), 2021. pp. 107–118.

The published research considered in this section of the literature review generally indicates that if tourists and the public perceive a disaster-struck destination as not fully recovered, then their likelihood of choosing to travel to that destination is not very high. Re-establishing public perceptions of safety is crucial to reassure potential tourists. Many researchers point to the reduction in tourist arrivals following major events.¹¹⁴ These events indicate declines in tourists spread to neighbouring destinations as well, even if they were not impacted by the event directly. Many of these studies have mostly taken case study approaches and not much thought has been put into looking at tourism and disasters at a global level. The main focus of disaster tourism research has also mainly revolved around risk perceptions of tourists post disaster. Here again, much of the research focused on individual events or individual places, with relatively little attention being paid to a broader framework of disasters in general. It is to this lacuna that this Masters study has turned.

2.2 Tourism and Disease

Diseases have always influenced tourism, so naturally researchers have been looking into how much of an effect these have had. Not all health crises turn into pandemics, but they still have an impact on tourism, even without being widespread or well known.

The 2002 article titled “Global environmental consequences of tourism”¹¹⁵ by author S. Gössling brought to light that the environmental consequences of international tourism has never really been assessed or quantified even though it is assumed to have a great

¹¹⁴ X.C. Jin *et al.*, ‘Impact of crisis events on Chinese outbound tourist flow: A framework for post-events growth’, *Tourism Management* 74, 2019, pp. 334-344; Y.S. Wang, ‘The impact of crisis events and macroeconomic activity on Taiwan's international inbound tourism demand’, *Tourism management* 30(1), 2009, pp. 75-82; J. Rosselló *et al.*, ‘The effects of natural disasters on international tourism: A global analysis’, *Tourism management* 79, 2020, p.104080; H. Ma *et al.*, ‘Safety or travel: Which is more important? The impact of disaster events on tourism’, *Sustainability* 12(7), 2020, p. 3038; C.R. Chiou *et al.*, ‘Assessing impact of natural disasters on tourist arrivals: The case of Xitou nature education area (XNEA), Taiwan’, *International Journal of Tourism Sciences* 13(1), 2013, pp. 47-64; A.K. Tiwari *et al.*, ‘Foreign tourist arrivals in India from major source countries: An empirical analysis’, *Current Issues in Asian Tourism*, 2020, pp. 91-110.

¹¹⁵ S. Gössling, ‘Global environmental consequences of tourism’, *Global Environmental Change* 12(4), 2002, pp. 283–302.

impact.¹¹⁶ Gössling divided his study into five major aspects, four of which are directly related to the impact of tourism on the environment, while one considers how diseases in general are exchanged and dispersed from tourists' travel patterns.¹¹⁷ This latter concern emphasizes the link between tourism and the spread of diseases.

The article “Anatomy of tourism crisis: Explaining the effects on tourism of the UK foot and mouth disease epidemics of 1967–68 and 2001 with special reference to media portrayal”¹¹⁸ by E. Baxter and D. Bowen published in 2004 provides an analysis and critique of the media's role in two separate outbreaks of the same disease in the same country. In particular, the article focuses on the effect that the foot and mouth disease had on tourism during two separate outbreaks. The article sets out to analyse the characteristics of each outbreak and compares the changes that resulted. It is concluded that the two different outbreaks had different effects on tourism. The initial outbreak had little change to the tourism industry, whereas the 2001 epidemic had a much larger effect. Authors Baxter and Bowen came up with a few explanations for these differences such as: the time of year that the outbreaks occurred, as well as how far the disease spread. The article concluded that the role of the media is “crucial” in tackling any future disaster such as disease outbreak.¹¹⁹

In a 2007 article “The human/animal interface: Emergence and resurgence of zoonotic infectious diseases”¹²⁰ by M. Greger discusses the idea that most new infectious diseases originate from an animal source. The author goes on to explain how these diseases play have a major knock-on effect on people's lives and the tourism industry. Greger studied

¹¹⁶ S. Gössling, ‘Global environmental consequences of tourism’, *Global Environmental Change* 12(4), 2002, pp. 283–302.

¹¹⁷ S. Gössling, ‘Global environmental consequences of tourism’, *Global Environmental Change* 12(4), 2002, pp. 283–302.

¹¹⁸ E. Baxter & D. Bowen, ‘Anatomy of tourism crisis: Explaining the effects on tourism of the UK foot and mouth disease epidemics of 1967–68 and 2001 with special reference to media portrayal’, *International Journal of Tourism Research* 6, 2004, pp. 263–273.

¹¹⁹ E. Baxter & D. Bowen, ‘Anatomy of tourism crisis: Explaining the effects on tourism of the UK foot and mouth disease epidemics of 1967–68 and 2001 with special reference to media portrayal’, *International Journal of Tourism Research* 6, 2004, pp. 263–273.

¹²⁰ M. Greger, ‘The human/animal interface: Emergence and resurgence of zoonotic infectious diseases’, *Critical Reviews in Microbiology* 33(4), 2007, pp. 243–299.

the origins of major human infectious diseases and how these diseases came about. He found that the increased frequency of the emergence and re-emergence of diseases derived from animals is largely due to the fact that our uses of land and agriculture has shrunken the natural breeding landscapes for animals. Peoples' travels due to business, VFR, and tourism has caused an increase in the spread of diseases. The article focused primarily on influenza virus A that is believed to have the greatest zoonotic potential, meaning it spreads easily between animals and humans.¹²¹

Still on the topic of diseases, the article "The perpetual challenge of infectious diseases"¹²² written in 2012 by A.S. Fauci and D.M. Morens looks at the challenges that infectious diseases cause when it comes to humans. They point out that diseases at a global pandemic level and a local epidemic level have changed the course of wars. For example, the Spanish influenza changed the course of World War 1 (WW1),¹²³ as it affected how and where civilizations moved and has even changed the fate of nations. Disease has also played a role in tourism and the development of tourist sites as people have avoided certain areas because of disease outbreak.¹²⁴ One could argue that diseases have played a big part in the world order since the start of history. Scholars have scrutinized research over the last 200 years and noted that medical professionals have been trying numerous times to understand, treat, control, and prevent diseases, but as soon as one is 'under control' another one surfaces, and progress starts from the beginning again.¹²⁵

¹²¹ M. Greger, 'The human/animal interface: Emergence and resurgence of zoonotic infectious diseases', *Critical Reviews in Microbiology* 33(4), 2007, pp. 243–299.

¹²² A.S. Fauci & D.M. Morens, 'The perpetual challenge of infectious diseases', *New England Journal of Medicine* 366(5), 2012, pp. 454–461.

¹²³ S.A. Golshani *et al.*, 'Spanish flu and the end of World War I in Southern Iran from 1917–1920', *Archives of Iranian Medicine* 24(1), 2021, pp. 78-83.

¹²⁴ M. Novelli *et al.*, 'No Ebola... still doomed'—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87

¹²⁵ A.S. Fauci & D.M. Morens, 'The perpetual challenge of infectious diseases', *New England Journal of Medicine* 366(5), 2012, pp. 454–461.

In an article titled “Short-term economic impact of the Zika virus outbreak”¹²⁶ by authors D. Macciocchi, S. *et al*, in 2016, the focus is on the Zika virus that is normally transmitted by mosquito bites, but has in a few reported cases been transmitted by sexual contact in countries where the mosquitoes are not present. The article looks at person-to-person transmission of the virus and discusses how it could affect the Latin American and Caribbean countries that have been so dependent on tourism. The authors concluded that these countries seem to be resilient to these threats. They recommended that countries should scale-up interventions to prevent the further spreading of the Zika virus epidemic.¹²⁷

In a study entitled “The global economic burden of dengue: A systematic analysis”¹²⁸ by D.S. Shepard, E.A. Undurraga, Y.A. Halasa, and J.D. Stanaway in 2016, they also studied how disease affected the economy. The authors explored the factors hampering and hindering proper evaluation of the economic burden. They found that many cases remain unreported or unrecognized. They suggested that a more objective, systematic, and comparable measure of Dengue virus research is needed to track progress and assess the application of up-and-coming preventive and control strategies such as health policies. The focus of the study is less on tourism, but more on the global transmission of the Dengue virus and the estimated cost related to medical and non-medical expenses.¹²⁹

Much of the literature on EVD has for obvious reasons focused on the West African region. The aim of the article “No Ebola...still doomed” – the Ebola-induced tourism crisis”¹³⁰ by M. Novelli, L.G. Burgess, A. Jones, and B.W. Ritchie published in 2018, was to explore how countries that did not have a single reported case of EVD were still hit with tourist avoidance. It critically investigates the Gambian tourist arrivals prior to and post

¹²⁶ D. Macciocchi *et al.*, ‘Short-term economic impact of the Zika virus outbreak’, *New Microbiologica* 39(4), 2016, pp. 287-289.

¹²⁷ D. Macciocchi *et al.*, ‘Short-term economic impact of the Zika virus outbreak’, *New Microbiologica* 39(4), 2016, pp. 287-289.

¹²⁸ D.S. Shepard *et al.*, ‘The global economic burden of dengue: A systematic analysis’, *The Lancet Infectious Diseases* 16 (8), 2016, pp. 935–941.

¹²⁹ D.S. Shepard *et al.*, ‘The global economic burden of dengue: A systematic analysis’, *The Lancet Infectious Diseases* 16 (8), 2016, pp. 935–941.

¹³⁰ M. Novelli *et al.*, ‘No Ebola...still doomed’ – the Ebola-induced tourism crisis’ *Annals of Tourism Research* 70(3), 2018, pp. 76–87.

the Ebola outbreak. The findings indicate that EVD had devastating consequences on the tourism industry, without ever being present in the country. This study is of great relevance as it points out that tourists can perceive a threat within a country purely based on its location compared to another country. Researchers attempted to understand the challenges encountered, what were the management failures that contributed to the downfall of tourism with an indirect threat of the diseases.¹³¹

In a book edited by D. Timothy titled *Handbook of globalization and tourism*¹³² published in 2019 there is a chapter written by C.M. Hall titled “Biological invasion, biosecurity, tourism, and globalisation”.¹³³ Herein Hall explains how tourism is one of the key factors in biotic exchange and it has the potential to become one of the main bio-contaminants on Earth.¹³⁴ The point is made that tourism, or more specifically tourists and their activities and transportation they use, can carry and transmit biological contaminants. This chapter investigates this from various aspects such as human contact with animals and disease vectors such as flies and mosquitoes. Hall also studied other pathways of spreading these bio-contaminants such as through luggage, food, shoes and clothing, and various modes of transportation. This chapter concluded by discussing valuable ways of managing biological invasions and other biosecurity concerns.¹³⁵

It is apparent from the literature discussed above that since tourism as an industry is ‘people focussed,’ something like disease will always pose a major threat to the business. And as tourism is a business, one will often find the economic impacts being researched extensively.¹³⁶ However, many researchers have focused on individual case studies of

¹³¹ M. Novelli *et al.*, ‘No Ebola...still doomed’ – the Ebola-induced tourism crisis’ *Annals of Tourism Research* 70(3), 2018, pp. 76–87.

¹³² C.M. Hall, ‘Biological invasion, biosecurity, tourism, and globalisation’, in D. Timothy (ed.), *Handbook of globalization and tourism*, pp. 114–125.

¹³³ C.M. Hall, ‘Biological invasion, biosecurity, tourism, and globalisation’, in D. Timothy (ed.), *Handbook of globalization and tourism*, pp. 114–125.

¹³⁴ ¹³⁴ C.M. Hall, ‘Biological invasion, biosecurity, tourism, and globalisation’, in D. Timothy (ed.), *Handbook of globalization and tourism*, p. 122.

¹³⁵ C.M. Hall, ‘Biological invasion, biosecurity, tourism, and globalisation’, in D. Timothy (ed.), *Handbook of globalization and tourism*, pp. 114–125.

¹³⁶ A.S. Fauci & D.M. Morens, ‘The perpetual challenge of infectious diseases’, *New England Journal of Medicine* 366(5), 2012, pp. 454–461.

areas they deem important or have tended to focus on individual diseases and not looked into a broader overall concept of diseases across a wider platform. Again, this is a gap which this current study addresses.

2.3 Tourism and Pandemics

Since the outbreak of the COVID-19 pandemic, there has been an increasing number of studies focusing on pandemics in tourism. These have considered travel and how peoples' movements have accelerated and intensified the spread of disease and increased the chance of it becoming a pandemic. This has also been regarded as a good place for monitoring disease and epidemiology.¹³⁷ Mass transport had already started by the time that the Spanish Influenza broke out in 1918. D. Killingray, as well as J.K. Taubenberger & D.M. Morens in their respective articles suggest that this 1918 pandemic became such a large-scale pandemic due to the fact that people were moving so easily and more freely from the technological developments of shipping and railways.¹³⁸

According to G.C. Chien and R. Law in an article titled "The impact of the severe Acute respiratory Syndrome on hotels: A case study of Hong Kong"¹³⁹ written in 2003, the WHO reportedly "advised international travellers to avoid visiting several regions that have the greatest number of SARS cases, including Hong Kong".¹⁴⁰ This had an obvious negative effect on the number of tourists to Hong Kong to the point that tourist arrivals dropped to a level that Hong Kong had never experienced before. At the time of this outbreak, tourism and hospitality operators did not have enough knowledge on how to respond to such a

¹³⁷ A. Browne *et al.*, 'The roles of transportation and transportation hubs in the propagation of influenza and coronaviruses: A systematic review', *Journal of Travel Medicine* 23(1), 2016, tav002; K. Khan *et al.*, 'Spread of a novel influenza A (H1N1) virus via global airline transportation', *New England Journal of Medicine* 361(2), 2009, pp. 212–214; C. Nicolaides *et al.*, 'Hand-hygiene mitigation strategies against global disease spreading through the air transportation network', *Risk Analysis* 40(4), 2019, pp. 723–740; J. Liu *et al.*, 'The life cycle of a pandemic crisis: SARS impact on air travel', *Journal of International Business Research* 10(2), 2011, p. 63.

¹³⁸ D. Killingray, 'A new 'imperial disease': The influenza pandemic of 1918–9 and its impact on the British Empire', *Caribbean Quarterly* 49(4), 2003, pp. 30–49; J.K. Taubenberger & D.M. Morens, '1918 Influenza: the mother of all pandemics', *Emerging Infectious Diseases* 12(1), 2006, pp. 15–22.

¹³⁹ G.C. Chien & R. Law, 'The impact of the severe Acute respiratory Syndrome on hotels: A case study of Hong Kong', *International Journal of Hospitality Management* 22 (3), 2003, pp. 327–332.

¹⁴⁰ G.C. Chien & R. Law, 'The impact of the severe Acute respiratory Syndrome on hotels: A case study of Hong Kong', *International Journal of Hospitality Management* 22 (3), 2003, pp. 327–332.

crisis since there was not enough literature available and no pandemic readiness plan in place to guide them. This article aimed to assist in crisis management and risk identification, assessment, and alleviation with a focus on helping the hotel industry for future pandemic type crises.¹⁴¹

Also investigating SARS is an article by H.I. Huo, C.C. Chen, W.C. Tseng, L.F. Ju, and B.W. Huang entitled “Assessing impacts of SARS and Avian Flu on international tourism demand to Asia”¹⁴² published in 2008. This article however focusses on the impacts of this outbreak and Avian Flu on tourism in different Asian countries. This study was conducted using two different models to estimate the effects of these two diseases and estimate the overall impact of these two diseases on the region. The findings of both their studies indicated that the number of cases have a substantial influence on SARS-affected countries, but not on Avian Flu-affected countries. The authors underline that future pandemics have a high potential damage and as a result “the need to take the necessary precautions in the event of an outbreak of Avian Flu and pandemic influenza warrants further attention and action”.¹⁴³ The authors note that this is especially important when diseases are easily transmissible.¹⁴⁴

In the 2006 article “1918 Influenza: the mother of all pandemics”,¹⁴⁵ J.K. Taubenberger and D.M. Morens also attempted to provide a warning that public health was at risk of another major pandemic such as the “Spanish influenza”,¹⁴⁶ that killed more than 50 million people. They suggest that a vital part in dealing with future pandemics lies in

¹⁴¹ G.C. Chien & R. Law, ‘The impact of the severe Acute respiratory Syndrome on hotels: A case study of Hong Kong’, *International Journal of Hospitality Management* 22 (3), 2003, pp. 327–332.

¹⁴² H.I. Kuo *et al.*, ‘Assessing impacts of SARS and Avian Flu on international tourism demand to Asia’, *Tourism Management* 29, 2008, pp. 917–928.

¹⁴³ H.I. Kuo *et al.*, ‘Assessing impacts of SARS and Avian Flu on international tourism demand to Asia’, *Tourism Management* 29, 2008, pp. 917–928.

¹⁴⁴ H.I. Kuo *et al.*, ‘Assessing impacts of SARS and Avian Flu on international tourism demand to Asia’, *Tourism Management* 29, 2008, pp. 917–928.

¹⁴⁵ J.K. Taubenberger & D.M. Morens, ‘1918 Influenza: the mother of all pandemics’, *Emerging Infectious Diseases* 12(1), 2006, pp. 15–22.

¹⁴⁶ T. Hoppe, ‘Spanish flu: when infectious disease names blur origins and stigmatize those infected’, *American Journal of Public Health* 108(11), 2018, pp. 1462-1464.

conducting a “historical analysis” and better understanding of the 'Spanish' influenza and what linkage it may have on future pandemics.¹⁴⁷

K. Khan, *et al.*, in their journal article, “Spread of a novel influenza A (H1N1) virus via global airline transportation”,¹⁴⁸ published in 2009 focuses on international air travel from March to April 2008 from Mexico, where unknowingly travellers allegedly transmitted the novel influenza A H1N1 virus without knowing they were infected with it. The aim of their research was to study how the H1N1 virus could have potentially spread worldwide from this one initial starting point. Their findings proved that countries accepting more than 1400 air passengers from Mexico had considerably higher risk of infections. The relationship between air travellers and the spread of disease is a well-known connection and this research can help countries around the world have an improved prediction of their risks of importing global infectious diseases.¹⁴⁹

M.R. Keogh-Brown, R.D. Smith, J.W. Edmunds, and P. Beutels argue that SARS proved that pandemics could have a significant impact on the economics of a country. The article “The macroeconomic impact of pandemic influenza: estimates from models of the United Kingdom (UK), France, Belgium and The Netherlands”¹⁵⁰ written in 2010 looks at two influenza strains H1N1 and the probable H5N1, which has the potential to have a greater impact than all other previous influenzas. The authors used a model to examine various scenarios ranging from different severity of outbreak to investigate the potential economic cost of a ‘modern’ pandemic. They studied the cost of a wide range of impacts such as school closures, vaccinations, and absence from work. The results indicated that there would be a possible loss of 0.5 – 2% of GDP, but school closure and absence from work would at least triple the effect of the pandemic. According to the model analysis, antivirals

¹⁴⁷ J.K. Taubenberger & D.M. Morens, ‘1918 Influenza: the mother of all pandemics’, *Emerging Infectious Diseases* 12(1), 2006, pp. 15–22.

¹⁴⁸ K. Khan *et al.*, ‘Spread of a novel influenza A (H1N1) virus via global airline transportation’, *New England Journal of Medicine* 361(2), 2009, pp. 212–214.

¹⁴⁹ K. Khan *et al.*, ‘Spread of a novel influenza A (H1N1) virus via global airline transportation’, *New England Journal of Medicine* 361(2), 2009, pp. 212–214.

¹⁵⁰ M.R. Keogh-Brown *et al.*, ‘The macroeconomic impact of pandemic influenza: estimates from models of the United Kingdom, France, Belgium and The Netherlands’, *The European Journal of Health Economics* 11, 2010, pp. 543- 554.

and vaccines helped reduce the impact of pandemics. Although the article does not refer to tourism specifically, it does conclude by discussing how planning is important to alleviate much of the financial loss from a pandemic and policies are needed to minimise illness that causes absences and deaths.¹⁵¹ This is of direct relevance to the tourism domain.

M.R. Keogh-Brown, J.W. Edmunds, P. Beutels, and R.D. Smith published another article in 2010 on viruses. For this article they teamed up with S. Wren-Lewis to evaluate the impact of an influenza type of pandemic on a nation's economy. In their article, "The possible macroeconomic impact on the UK of an influenza pandemic"¹⁵² they discussed how they used a different model to previous UK influenza pandemics and applied it to more severe disease scenarios. This research stated that the economic impact of a pandemic that allowed for school closures would be short-lived and would result in a GDP loss of 3.35 and potentially 0.58% in the first quarter of the year. When the model was changed to having more than 1% of the population dying then these figures increased to a GDP loss of 21 and 4.5%, loss in the first quarter. Their findings revealed that pandemic readiness plans that focus on containing the pandemic, rather than the pandemic itself, had the most severe economic impact.¹⁵³ Again, while tourism is not reflected upon specifically, the economic concerns as regards GDP are of significant relevance.

The publication by S.K. Paesah, E. Azziz-Baumgartner, J. Breese, M.I. Meltzer, and M.A. Widdowson, "Influenza cost and cost effectiveness studies globally – a review"¹⁵⁴ published in 2013 also presents an economic view of viruses. In this research, they investigated the annual common influenza, and found that approximately 10–20% of the total world population gets infected with influenza every year. These infections cause a

¹⁵¹ M.R. Keogh-Brown *et al.*, 'The macroeconomic impact of pandemic influenza: estimates from models of the United Kingdom, France, Belgium and The Netherlands', *The European Journal of Health Economics* 11, 2010, pp. 543- 554.

¹⁵² M.R. Keogh-Brown *et al.*, 'The possible macroeconomic impact on the UK of an influenza pandemic', *Health Economics* 19, 2010, pp. 1345–1360.

¹⁵³ M.R. Keogh-Brown *et al.*, 'The possible macroeconomic impact on the UK of an influenza pandemic', *Health Economics* 19, 2010, pp. 1345–1360.

¹⁵⁴ S.K. Paesah *et al.*, 'Influenza cost and cost effectiveness studies globally – a review', *Vaccine* 31(46), 2013, pp. 5339–5348.

large number of hospital visits which is a major burden on the economy and health care system. This study looked at various sources to find 140 other studies relating to estimated costs associated with seasonal influenza or cost effectiveness of influenza vaccination. A majority of these 140 studies were conducted in high income countries, the few remaining studies were conducted in upper-middle income countries, while there were no studies found in low-income countries. The results of this study showed that the influenza vaccination was a good cost-saving method and researchers believe that decision makers in lower income countries lack economic data to support influenza vaccine policy decisions.¹⁵⁵ The question of vaccination is also of relevance to tourism, particularly when coming to contagious diseases.

In 2020 an article “Hospitality, tourism, human rights and the impact of COVID-19”¹⁵⁶ written by T. Baum, and N.T.T. Hai, provide a ‘real-time’ perspective of the impact of the COVID-19 pandemic on “the right to participate in hospitality and tourism and to illustrate where such rights are under threat”.¹⁵⁷ The authors looked at tourism and hospitality industries through a human rights lens and focused on Asia, Europe and North America since these areas were experiencing Covid infections at an unprecedented rate. They found that rights to participate in hospitality and tourism have been challenged as never before.¹⁵⁸ They concluded that further studies needed to be conducted to find out the extent to which such rights will be restored once the pandemic is “over”.¹⁵⁹

M.I. Awan, A. Shamim, and J. Ahn in their 2020 article “Implementing cleanliness is half of faith in re-designing tourists, experiences and salvaging the hotel industry in Malaysia

¹⁵⁵ S.K. Peasah *et al.*, ‘Influenza cost and cost effectiveness studies globally – a review’, *Vaccine* 31(46), 2013, pp. 5339–5348.

¹⁵⁶ T. Baum & N.T.T. Hai, ‘Hospitality, tourism, human rights and the impact of COVID-19’, *International Journal of Contemporary Hospitality Management* 32(7), 2020, pp. 2397–2407

¹⁵⁷ T. Baum & N.T.T. Hai, ‘Hospitality, tourism, human rights and the impact of COVID-19’, *International Journal of Contemporary Hospitality Management* 32(7), 2020, p. 2397.

¹⁵⁸ T. Baum & N.T.T. Hai, ‘Hospitality, tourism, human rights and the impact of COVID-19’, *International Journal of Contemporary Hospitality Management* 32(7), 2020, pp. 2397–2407.

¹⁵⁹ S.J. Daniel, ‘Education and the COVID-19 pandemic’, *Prospects* 49(1), 2020, pp.91-96.

during COVID-19 pandemic”,¹⁶⁰ also took a ‘real-time’ view on the COVID-19 pandemic. The focus of their research was on safety and sanitation of the hospitality industry in the tourism reliant region of Malaysia. The aim of their research was to define the ‘new normal’ in terms of customer service for the hotel industry, since it is such a people driven industry and the use of technology cannot completely replace human interaction. Their research revealed that good practices for these industries to introduce is disinfection and sanitation activities, re-designing overall infrastructure to make tourists feel more comfortable and confident. This study provided in-depth knowledge of what a tourist might expect from hotels and laid these out in a useful guideline for hotels and other researchers to use.¹⁶¹

Similarly, in the 2020 article “Impact of COVID-19: Research note on tourism and hospitality sectors in the epicenter of Wuhan and Hubei province, China”¹⁶² by D.W. Knight, L. Xiong, W. Lan, and J. Gong, the vulnerability of the tourism and hospitality industries during the COVID-19 pandemic in Wuhan and Hubei Province China was evaluated. They found that there was an obvious immediate economic loss in these industries and employees were concerned about the uncertainty of the industries’ recovery. Research noted that there was a need for immediate action for “cost control and governmental subsidies”,¹⁶³ and that the industries had to adjust and transform with guidance and policies from governments in order to ‘restore’ the industry. They concluded

¹⁶⁰ M.I. Awan *et al.*, ‘Implementing cleanliness is half of faith in re-designing tourists, experiences and salvaging the hotel industry in Malaysia during COVID-19 pandemic’, *Journal of Islamic Marketing* 13(3), 2020, pp. 543-557.

¹⁶¹ M.I. Awan *et al.*, ‘Implementing cleanliness is half of faith in re-designing tourists, experiences and salvaging the hotel industry in Malaysia during COVID-19 pandemic’, *Journal of Islamic Marketing* 13(3), 2020, pp. 543-557.

¹⁶² D.W. Knight *et al.*, ‘Impact of COVID-19: Research note on tourism and hospitality sectors in the epicenter of Wuhan and Hubei province, China’, *International Journal of Contemporary Hospitality Management* 32(12), 2020, pp. 3705-3719.

¹⁶³ D.W. Knight *et al.*, ‘Impact of COVID-19: Research note on tourism and hospitality sectors in the epicenter of Wuhan and Hubei province, China’, *International Journal of Contemporary Hospitality Management* 32(12), 2020, p. 3705.

that governmental and managerial communication and support is needed in such “crisis situations”,¹⁶⁴ especially support of smaller, local businesses.¹⁶⁵

In their 2020 article S. Gössling, D. Scott, and C.M. Hall outline how the COVID-19 pandemic may change society, the economy, and tourism. The article, “Pandemics, tourism and global change: a rapid assessment of COVID-19”,¹⁶⁶ was written during the start of the COVID-19 pandemic when there were no vaccines available, so their main focus was on containment of the pandemic through non-pharmaceutical interventions (NPI). The authors made a point of noting that tourism is susceptible to measures to contain pandemics, because these measures aim to restrict people’s mobility and enforce social distancing. The article goes on to compare the impacts of COVID-19 to some previous epidemics, pandemics, and other global crises.¹⁶⁷

In their 2019 article, “Hand-hygiene mitigation strategies against global disease spreading through the air transportation network”,¹⁶⁸ authors C. Nicolaidis, D. Avraam, L. Cueto-Felgueroso, M.C. Gonzalez and R. Juanes discuss risks in global transmission of viruses that are spread through tiny droplets from when people sneeze, cough or talk. They discuss how the spread of such diseases is amplified where there is physical contact between humans and when they are in close confined spaces such as aeroplanes. Since the inception of air travel, disease transmission across long distances over a short period of time has been an issue of concern. As the authors point out, the CDC and WHO consider hand hygiene as the most efficient and cost-effective way to limit disease transmission. The authors then decided to conduct studies at ten airports where there were increased travellers (tourists) and the use of hand washing. They calculated that by

¹⁶⁴ D.W. Knight *et al.*, ‘Impact of COVID-19: Research note on tourism and hospitality sectors in the epicenter of Wuhan and Hubei province, China’, *International Journal of Contemporary Hospitality Management* 32(12), 2020, pp. 3705-3719.

¹⁶⁵ This research is a good stepping stone for future researchers to gain insight and examine resilience strategies for future pandemics.

¹⁶⁶ S. Gössling *et al.*, ‘Pandemics, tourism and global change: a rapid assessment of COVID-19’, *Journal of sustainable tourism* 29 (1), 2020, pp. 1-20.

¹⁶⁷ S. Gössling *et al.*, ‘Pandemics, tourism and global change: a rapid assessment of COVID-19’, *Journal of sustainable tourism* 29 (1), 2020, pp. 1-20.

¹⁶⁸ C. Nicolaidis *et al.*, ‘Hand-hygiene mitigation strategies against global disease spreading through the air transportation network’, *Risk Analysis* 40(4), 2019, pp. 723–740.

increasing handwashing at those airports it could reduce the risk of a pandemic by potentially 37%.¹⁶⁹ At the time of their research, handwashing as a potential mitigation strategy against the global risk for a pandemic had not been fully explored. Unfortunately, what has since been learnt is that handwashing alone cannot stop the spread of influenza type diseases. Their results proved that good hand hygiene is effective, but they added it should not be the only preventative measure.¹⁷⁰

A 2019 article titled “Infectious disease threats in the 21st Century: Strengthening the global response”¹⁷¹ by authors D.E. Bloom and D. Cadarette examine the global health system network. The idea behind this network is to study the known and unknown infectious disease threats. The authors show how this network has tried to protect and promote human health even though threatening diseases keep emerging and re-emerging. Each threat is different in terms of severity and probability of a pandemic as they also have varying illness and death rates. According to them, most of these diseases have been relatively responsive to countermeasures. This article discussed how there is a need for a multi-disciplinary “Global Technical Council on Infectious Disease Threats”. The idea behind this suggestion is that the Council could address the current and future global challenges of infectious diseases and their associated social and economic risks.¹⁷² The WHO focuses on containing the risks and are less focused on the economic risks to countries while other organisations have different focuses. The authors propose this could work to improve collaboration and coordination across organisations and potentially fill in knowledge gaps when it comes to surveillance, research, and development needs.¹⁷³ Again, this is of direct relevance to the tourism domain.

¹⁶⁹ C. Nicolaides *et al.*, ‘Hand-hygiene mitigation strategies against global disease spreading through the air transportation network’, *Risk Analysis* 40(4), 2019, pp. 723–740.

¹⁷⁰ C. Nicolaides *et al.*, ‘Hand-hygiene mitigation strategies against global disease spreading through the air transportation network’, *Risk Analysis* 40(4), 2019, pp. 723–740.

¹⁷¹ D.E. Bloom & D. Cadarette, ‘Infectious disease threats in the 21st Century: Strengthening the global response’, *Frontiers in Immunology* 10, 2019, p. 549.

¹⁷² D.E. Bloom & D. Cadarette, ‘Infectious disease threats in the 21st Century: Strengthening the global response’, *Frontiers in Immunology* 10, 2019, p. 549.

¹⁷³ D.E. Bloom & D. Cadarette, ‘Infectious disease threats in the 21st Century: Strengthening the global response’, *Frontiers in Immunology* 10, 2019, p. 549.

Authors C. Fung, B. Tsui, and A.H. Hon in their 2020 article “Crisis management: A case study of disease outbreak in the Metropark hotel group”,¹⁷⁴ reviews the hospitality industry and their disease challenges in Hong Kong, China with a particular focus on SARS in 2003 and Influenza A (H1N1) in 2009. The hotels they studied had a “crisis management contingency plan”¹⁷⁵ which then proved ineffective during the measles outbreak in 2019. This case study is important to the current research because it helps to understand the development of a crisis management plan and marketing strategy for industries such as hospitality and tourism. It follows the four main phases of a crisis management framework set out by the WHO.¹⁷⁶

2.4 Conclusion

As mentioned, when studying pandemics in relation to tourism, researchers have focused on specific regions or countries and especially more high-income countries.¹⁷⁷ Global research has not received that much specific attention. The studies undertaken tend to look at their own countries at national level in order to help improve their respective tourism industries.¹⁷⁸ Research has also mostly been focused on specific pandemics and not pandemics in general.¹⁷⁹ An exception to this general trend is the work of Hall and

¹⁷⁴ C. Fung *et al.*, ‘Crisis management: A case study of disease outbreak in the metropark hotel group’, *Asia Pacific Journal of Tourism Research* 25 (10), 2020, pp. 1062–1070.

¹⁷⁵ C. Fung *et al.*, ‘Crisis management: A case study of disease outbreak in the metropark hotel group’, *Asia Pacific Journal of Tourism Research* 25 (10), 2020, p. 1062.

¹⁷⁶ C. Fung *et al.*, ‘Crisis management: A case study of disease outbreak in the metropark hotel group’ *Asia Pacific Journal of Tourism Research* 25 (10), 2020, pp. 1062–1070.

¹⁷⁷ S.K. Peasah *et al.*, ‘Influenza cost and cost effectiveness studies globally – a review’, *Vaccine* 31(46), 2013, pp. 5339–5348; D. Killingray, ‘A new ‘imperial disease’: The influenza pandemic of 1918–9 and its impact on the British Empire’, *Caribbean Quarterly* 49(4), 2003, pp. 30–49; E. Baxter & D. Bowen, ‘Anatomy of tourism crisis: Explaining the effects on tourism of the UK foot and mouth disease epidemics of 1967–68 and 2001 with special reference to media portrayal’, *International Journal of Tourism Research* 6, 2004, pp. 263–273.

¹⁷⁸ F.M. Burkle Jr, ‘Globalization and disasters: Issues of public health, state capacity and political action’, *Journal of International Affairs* 59(2), 2006, pp. 231–265; M.R. Keogh-Brown *et al.*, ‘The possible macroeconomic impact on the UK of an influenza pandemic’, *Health Economics* 19(11), 2010, pp.1345–1360; R.J. Coker *et al.*, ‘Emerging infectious diseases in southeast Asia: regional challenges to control’, *The Lancet* 377(9765), 2011, pp. 599–609; G.C. Chien & R. Law, ‘The impact of the severe Acute respiratory Syndrome on hotels: A case study of Hong Kong’, *International Journal of Hospitality Management* 22 (3), 2003, pp. 327–332; B. Rittichainuwat *et al.*, ‘Resilience to crises of Thai MICE stakeholders: A longitudinal study of the destination image of Thailand as a MICE destination’, *Tourism management perspectives* 35, 2020, p. 100704.

¹⁷⁹ P.J. Tew *et al.*, ‘Sars: Lessons in strategic planning for hoteliers and destination marketers’, *International Journal of Contemporary Hospitality Management* 20(3), 2008, pp. 332–346; D. Rassy & R.D. Smith, ‘The economic impact of H1N1 on Mexico’s tourist and pork sectors’, *Health Economics* 22(7), 2013, pp. 824–

Gössling who have broken away from the norm to attempt a more inclusive approach to pandemics and tourism research.¹⁸⁰

The global COVID-19 pandemic is undeniably an emerging research focus. There were a large number of articles relating to COVID-19 that were published within a short period of time.¹⁸¹ For the tourism industry, travel after a pandemic is normally focused on how comfortable and confident a tourist feels in a destination's recovery efforts.¹⁸²

834; J.K. Taubenberger & D.M. Morens, '1918 Influenza: the mother of all pandemics', *Emerging Infectious Diseases* 12(1), 2006, pp. 15–22.

¹⁸⁰ C.M. Hall, 'Tourism, biodiversity and global environmental change', in S. Gössling & C.M. Hall (eds.), *Tourism and global environmental change: Ecological, economic, social and political interrelationships*, pp. 142–156; S. Gössling, 'Global environmental consequences of tourism', *Global Environmental Change* 12(4), 2002, pp. 283–302.

¹⁸¹ D. Bulin & I.P. Tenie, 'Preliminary assessment of the COVID-19 pandemic impact on the tourism industry', *Global Economic Observer* 8(1), 2020, pp. 41–46; S. Jaipuria *et al.*, 'The impact of COVID-19 on tourism sector in India', *Tourism Recreation Research*, 2020, pp. 1–16; D.W. Knight *et al.*, 'Impact of COVID-19: Research note on tourism and hospitality sectors in the epicenter of Wuhan and Hubei province, China', *International Journal of Contemporary Hospitality Management*, 2020; R.T. Qiu *et al.*, 'Social costs of tourism during the COVID-19 pandemic', *Annals of Tourism Research* 84, 2020, p. 102994; H. Seraphin, 'COVID-19: An opportunity to review existing grounded theories in event studies', *Journal of Convention & Event Tourism* 22(1), 2021, pp. 3-35; N.G. Ugur & A. Akbiyık, 'Impacts of COVID-19 on global tourism industry: A cross-regional comparison', *Tourism Management Perspectives* 36, 2020, p. 100744.

¹⁸² D. Zheng *et al.*, 'Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic 'travel fear'. *Tourism Management* 83, 2021, pp.104261.

Chapter 3: Twentieth Century Pandemics

The twentieth century was a time that witnessed several serious and devastating pandemics and epidemics that left their mark on history and reshaped the world in profound ways. These crises left a lasting impact on global societies, economies and more importantly the travel and tourism sectors. Pandemics have occurred at various times and with varying degrees of effects particularly in the twentieth century. The years 1918, 1957, 1968, and 1976 are years of note that have had a substantial impact on society.¹⁸³ Annual influenza outbreaks were not that uncommon throughout history, but some influenza strains have been characterized as significant global infectious disease hazards due to their quick dispersion rates as well as their high mortality rates. These global influenza outbreaks are seen as more severe than most yearly influenza seasons.¹⁸⁴ Economic losses from pandemics are normally significant. An article published by K.R. Nigmatulina and R.C. Larson states that the number of possible fatalities can even be more than those from a nuclear bomb.¹⁸⁵ Another article by M.T. Osterholm stated that even a weak pandemic could result in terrible death tolls and serious financial implications for economies for many years.¹⁸⁶ Moreover, the fear of contracting a disease can sometimes be just as devastating to an economy, as the actual disease itself.¹⁸⁷

The pandemics that will be analysed in this research are the Spanish influenza of 1918; the Asian influenza of 1957; the Hong Kong influenza of 1968; and the Ebola Virus Disease (EVD) of 1976 (See Table 1). These lethal outbreaks not only claimed countless lives and had profound implications, but also had a far-reaching impact on various sectors resulting in a variety of social economic issues, including severe economic stagnation, social unrest, poverty, and food insecurity. These consequences were felt

¹⁸³ C.E. Mills *et al.*, 'Transmissibility of 1918 pandemic influenza', *Nature* 432(7019), 2004, pp. 904-906.

¹⁸⁴ M.T. Osterholm, 'Preparing for the next pandemic', *New England Journal of Medicine* 352(18), 2005, pp. 1839-1842.

¹⁸⁵ K.R. Nigmatulina & R.C. Larson, 'Living with influenza: impacts of government imposed and voluntarily selected interventions', *European Journal of Operational Research* 195(2), 2009, pp. 613-627.

¹⁸⁶ M.T. Osterholm, 'Preparing for the next pandemic', *New England Journal of Medicine* 352(18), 2005, pp. 1839-1842.

¹⁸⁷ H. Yeganeh, 'An analysis of emerging trends and transformations in global healthcare', *International Journal of Health Governance* 24(2), 2019, pp. 169-180.

disproportionately as they severely affected poorer households more seriously as well as low- and middle-income countries.¹⁸⁸ The travel and tourism industries were the most severely affected industries.¹⁸⁹

Table 1:¹⁹⁰ Pandemics that occurred during the twentieth century.¹⁹¹

Pandemic	Start	End	Area of emergence	Pathogen	Death toll	Number of infections	World Population (in billion)
Spanish Influenza	1918	1919	USA	Influenza A (H1N1)	40 - 70 million	500 million	1.82
Asian Influenza	1957	1958	Singapore	Influenza A (H2N2)	1 - 2 million	4.5 million	2.86
Hong Kong Influenza	1968	1970	China	Influenza A (H3N2)	1 - 4 million	5.3 million	3.54
Ebola Virus Disease ¹⁹²	1976	Now	Zaire ¹⁹³	Filoviridae Ebola virus	11 310	28 616	4.14

This chapter investigates the pandemics that occurred during this era, scrutinizing their effect on the world with a specific focus on the travel and tourism industry. Additionally, the chapter dissects the policies and procedures that governments and stakeholders used in response to these crises and aims to explain how these measures were instrumental

¹⁸⁸ F. Ahmed *et al.*, 'Why inequality could spread COVID-19', *The Lancet Public Health* 5(5), 2020 e240; H. Yeganeh, 'An analysis of emerging trends and transformations in global healthcare', *International Journal of Health Governance* 24(2), 2019, pp. 169-180.

¹⁸⁹ S. Bharwani & D. Mathews, 'Risk identification and analysis in the hospitality industry: Practitioners' perspectives from India', *Worldwide Hospitality and Tourism Themes* 4(5), 2012, pp. 410-427.

¹⁹⁰ These values are estimated from various sources.

¹⁹¹ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, p. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp.7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023; World Bank, 2023., 'Population, total', <<https://data.worldbank.org/indicator/SP.POP.TOTL>>, accessed: 27 June 2023.

¹⁹² Ebola is an epidemic and not a pandemic but is used in this study and data is also represented.

¹⁹³ Now known as the Democratic Republic of Congo (DRC)

in facilitating global recovery. This chapter also looks at how some of these important policies were rather “downfalls”¹⁹⁴ instead of “triumphs”.¹⁹⁵

3.1 A Historical Overview

The twentieth century stood as a testament to the volatility of infectious diseases, as there were several significant pandemics that left an indelible imprint on countries throughout the world. First and foremost, there was the Spanish influenza of 1918 that was characterized by an insurmountable death toll. After this was the Asian influenza of 1957 that emerged and proved that the technological advancements were not enough to stem this disease. The last major influenza outbreak of the twentieth century was the Hong Kong influenza of 1968, just ten short years after the Asian influenza and death tolls were still just as high. The final disease from the twentieth century that is analysed is EVD that was initially discovered in 1976 and has come and gone since then, and although it was not classified as a pandemic, but rather an epidemic, the mortality rate was actually higher than any other known disease.¹⁹⁶

When looking at past disasters, it is easy to notice a correlation between population increase in urbanised areas and an increase in disasters that affect people and subsequently the tourism industry.¹⁹⁷ When people live in close proximity to each other there is a higher chance of contracting a disease and due to its contagious nature, it being much more fatal.¹⁹⁸ Disease spreads easier and peoples fear about such diseases are intensified. Thus, urbanisation is a contributing factor as to why diseases can spread so

¹⁹⁴ B.A. Asmare, ‘Pitfalls of tourism development in Ethiopia: the case of Bahir Dar town and its surroundings’, *Korean Social Science Journal* 43, 2016, p. 15.

¹⁹⁵ J.C. Henderson, ‘Tourism and politics in the Korean Peninsula’, *Journal of Tourism Studies* 13(2), 2002, pp. 16-27.

¹⁹⁶ S.R. Shrivastava *et al.*, ‘Ebola disease: An international public health emergency’, *Asian Pacific Journal of Tropical Disease* 5(4), 2015, pp. 253-262.

¹⁹⁷ F.M. Burkle Jr, ‘Globalization and disasters: Issues of public health, state capacity and political action’, *Journal of International Affairs* 59(2), 2006, pp. 231–265.

¹⁹⁸ P.R. Berke, ‘Reducing natural hazard risks through state growth management’, *Journal of the American Planning Association* 64(1), 1998, pp. 76–87; G. Wachinger *et al.*, ‘The risk perception paradox—implications for governance and communication of natural hazards’, *Risk Analysis* 33, 2012, pp. 1049–1065.

quickly.¹⁹⁹ When people are living in rural areas then they are not exposed to as many people so they may not notice if a few people are ill. When living in built-up urban areas there are more people in close proximity which may result in more people falling ill. This could also lead to people fearing the outbreak of diseases.²⁰⁰

During the twentieth century societies started to see a global increase in population growth (See Graph 1). Populations growing at such an exponential rate resulted in hurried urbanization which meant that infrastructure was not always thoroughly planned out. Globalisation has also resulted in countries and societies becoming very dependent on each other and this has aided in a movement of people and goods at a rate that had never been seen before. Global travel grew from 25 million in 1950 to around 500 million in 1993.²⁰¹ R. Rodriguez-Garcia stated in a 2001 article that “the increased intensity and quantity of travel has resulted in greater vulnerability to the domino type spread of old, new, and re-emerging infectious diseases”.²⁰² (See Graph 2)

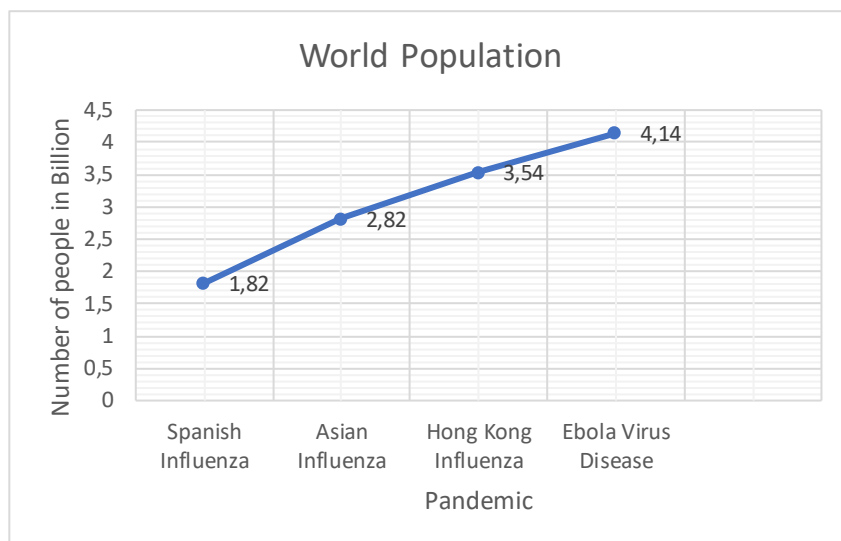
¹⁹⁹ E. Gierlach *et al.*, ‘Cross-cultural differences in risk perceptions of disasters’, *Risk Analysis* 30(10), 2010, pp. 1539–2549.

²⁰⁰ B. Faulkner, ‘Towards a framework for tourism disaster management’, *Tourism Management* 22, 2001, pp. 135–147.

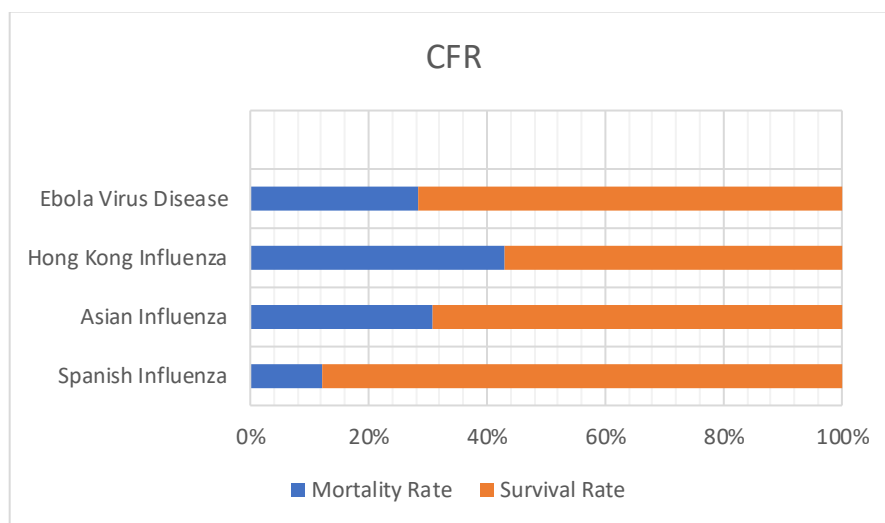
²⁰¹ R. Rodriguez-Garcia, ‘The health development link: travel as a public health issue’, *Journal of Community Health* 26, 2001, pp. 93-112.

²⁰² R. Rodriguez-Garcia, ‘The health development link: travel as a public health issue’, *Journal of Community Health* 26, 2001, pp. 93-112.

Graph 1: World population during the pandemics of the twentieth century.²⁰³



Graph 2: Ratio of infection vs death rate as a result of each twentieth pandemics.²⁰⁴



²⁰³ World Bank, 2023., 'Population, total', <<https://data.worldbank.org/indicator/SP.POP.TOTL>>, accessed: 27 June 2023.

²⁰⁴ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, p. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

Furthermore, as people started to settle down and cut down natural forests to be replaced with agriculture this caused there to be more interaction with undomesticated animals as humans started to domesticate them. As a result, various zoonotic diseases from “game”²⁰⁵ or wild animals emerged. With settlements taking over the natural landscape there are fewer forests for creatures such as mice, lice, fleas, and ticks which meant that there was more contact with humans and domesticated animals that humans consume.²⁰⁶ These interactions caused outbreaks, and since people settled nearer each other, there was a high contagious spread rate.²⁰⁷

3.1.1 Spanish Influenza 1918 – 1919

“Spanish influenza”²⁰⁸ pandemic was a virus that was transmitted from person to person through airborne respiratory secretions. This is known as the most severe pandemic of the twentieth century and one of the most devastating pandemics in human history having infected about one third of the global population.²⁰⁹ This outbreak had an extreme mortality rate since this was a new strain of the influenza virus to which many of the global population had no immunity.²¹⁰

The Spanish influenza pandemic arose during WW1, and as mentioned, this intercontinental warfare assisted its worldwide spread and may have increased the death toll. While in close quarters with inadequate health and hygiene, WW1 soldiers were more vulnerable to viruses and germs, which aided in the spread of Spanish influenza which

²⁰⁵ J.L. Bekker *et al.*, ‘Wildlife-associated zoonotic diseases in some southern African countries in relation to game meat safety: A review’, *Onderstepoort Journal of Veterinary Research* 79(1), 2012, pp. 1-12.

²⁰⁶ G. Ozbay *et al.*, ‘A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry’, *International Hospitality Review* 36(1), 2022, pp. 65-82.

²⁰⁷ G. Ozbay *et al.*, ‘A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry’, *International Hospitality Review* 36(1), 2022, pp. 65-82.

²⁰⁸ T. Hoppe, ‘Spanish flu: when infectious disease names blur origins and stigmatize those infected’, *American Journal of Public Health* 108(11), 2018, pp. 1462-1464.

²⁰⁹ N.P. Johnson & J. Mueller, ‘Updating the accounts: global mortality of the 1918-1920 “Spanish” influenza pandemic’, *Bulletin of the History of Medicine*, 2002, pp. 105-115; M.S. Rosenwald, 2021., ‘History’s deadliest pandemics, from ancient Rome to modern America’, <<https://www.washingtonpost.com/graphics/2020/local/retropolis/coronavirus-deadliest-pandemics/>>, accessed: 14 July 2023.

²¹⁰ The Editors of Encyclopaedia Britannica, 2023., ‘influenza pandemic of 1918–19’, <<https://www.britannica.com/event/influenza-pandemic-of-1918-1919>>, accessed: 27 June 2023.

they also carried home. This pandemic affected the travel sector, which seriously hindered the world's recovery after the War.²¹¹

There have been many hypotheses attempting to explain where this virus derived its name from. Some believe it got its name because it spread from Spain to France, although further study reveals otherwise.²¹² The epidemic was not worse in Spain nor is it believed to have originated there but, the Spanish press was uncensored during WW1, allowing for more free reporting. This meant that Spain was very transparent about the cases that occurred in the country and as a result people were led to believe that this is where it started.²¹³ On the other hand, Germany, Britain and France likely kept this terrible plague under wraps to avoid demoralising their soldiers and raising concerns about their health.²¹⁴ Today, most believe the 1918 influenza virus originated in the Midwest of the United States of America (USA).²¹⁵ From there, the virus may have travelled throughout USA and then to France on American military ships, where it spread across Europe and the globe.²¹⁶ In the winter of 1916–17, military camps in France reported influenza infections and high mortality rates. Two months later, one of Britain's largest military barracks, reported a similar problem.²¹⁷

The epidemic possibly hit every continent, however the number and severity of nations impacted varied. This pandemic occurred in three waves. Early in March 1918, it first

²¹¹ Important to note that at the time the concept of tourism was not yet defined. For the purposes of this research travel during this time will be evaluated instead of just the tourism industry.

²¹² M. Porras-Gallo & R.A. Davis, 'The Spanish Influenza Pandemic of 1918–1919: Perspectives from the Iberian Peninsula and the Americas', p. 113.

²¹³ N. Johnson, 'Britain and the 1918-19 Influenza Pandemic: A Dark Epilogue', p. 37.

²¹⁴ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

²¹⁵ J.M. Barry, 'The site of origin of the 1918 influenza pandemic and its public health implications', *Journal of Translational Medicine* 2(1), 2004, pp 1-4.

²¹⁶ K.D. Patterson & G.F. Pyle, 'The geography and mortality of the 1918 influenza pandemic', *Bulletin of the History of Medicine* 65(1), 1991, pp. 4–21.

²¹⁷ J.S. Oxford *et al.*, 'A hypothesis: the conjunction of soldiers, gas, pigs, ducks, geese and horses in northern France during the Great War provided the conditions for the emergence of the "Spanish" influenza pandemic of 1918-1919', *Vaccine* 23(7), 2005, pp. 940–945; K.R. Short, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343; J.A.B. Hammond *et al.*, 'Purulent Bronchitis.: A Study of Cases Occurring Amongst the British Troops at a Base in France', *The Lancet* 190, 1917, pp. 41–46.

appeared, and this initial wave was moderate.²¹⁸ The virus resurfaced in August 1918 and this second wave proved to be far more deadly. After the initial symptoms appeared, pneumonia progressed swiftly and left people dead within two days.²¹⁹ The virus moved from ports to cities along major transportation routes in practically every populated region. After WW1, the epidemic hit France and Italy, worsening the situation.²²⁰ As WW1 soldiers returned to Japan, the virus swept throughout the country as well.²²¹ This influenza moved across the USA in a similar fashion as the pioneers. Canada faced significant outbreaks, with cities like Toronto experiencing high mortality rates.²²² As civic and medical authorities were overburdened by rising body counts and wartime employee absences, the 1918 influenza pandemic caused immense hardship in several locations. Some towns, like Philadelphia, left dead in mortuaries and streets for days, like mediaeval Europe during the Black Death.²²³ The third pandemic wave hit in December 1918, and by the next April (1919), it was predominantly over.²²⁴

Several reasons may explain why the 1918 influenza pandemic has been largely forgotten. First, the pandemic coincided with WW1. Wartime developments abroad and troop status dominated the day's news. Thus, the Spanish influenza pandemic and WW1 were practically considered one event. Second, polio, smallpox, and syphilis were incurable and permanent which meant that healthcare workers were more focused on these viruses. Influenza, however, spread, killed, and disappeared.²²⁵ Even though the 1918 influenza pandemic was severe (See Graph 3 and Figure 1), it has largely been a

²¹⁸ J.M. Barry, 'The Great Influenza: The Story of the Deadliest Pandemic in History', p. 29.

²¹⁹ The Editors of Encyclopaedia Britannica, 2023., 'influenza pandemic of 1918–19', <<https://www.britannica.com/event/influenza-pandemic-of-1918-1919>>, accessed: 27 June 2023.

²²⁰ G. Chowell *et al.*, 'The 1918–1919 influenza pandemic in England and Wales: spatial patterns in transmissibility and mortality impact', *Proceedings of the Royal Society B: Biological Sciences* 275(1634), 2008, pp. 501-509.

²²¹ L. Spinney, 'The Spanish flu: an interdisciplinary problem', *The Lancet* 392(10164), 2018, p. 2552.

²²² G. Chowell *et al.*, 'The 1918–1919 influenza pandemic in England and Wales: spatial patterns in transmissibility and mortality impact', *Proceedings of the Royal Society B: Biological Sciences* 275(1634), 2008, pp. 501-509.

²²³ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

²²⁴ The Editors of Encyclopaedia Britannica, 2023., 'influenza pandemic of 1918–19', <<https://www.britannica.com/event/influenza-pandemic-of-1918-1919>>, accessed: 27 June 2023.

²²⁵ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

forgotten tragedy which resulted in people not planning for the future and remaining unprepared for imminent pandemic events.²²⁶

Graph 3: Spanish influenza mortality rate compared to survival rate.²²⁷

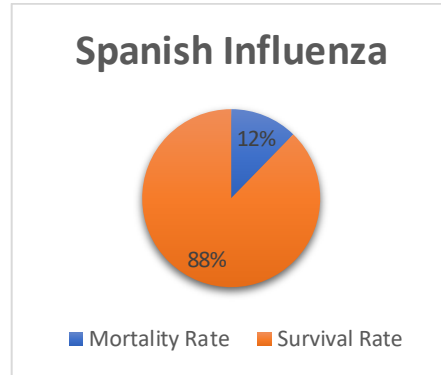
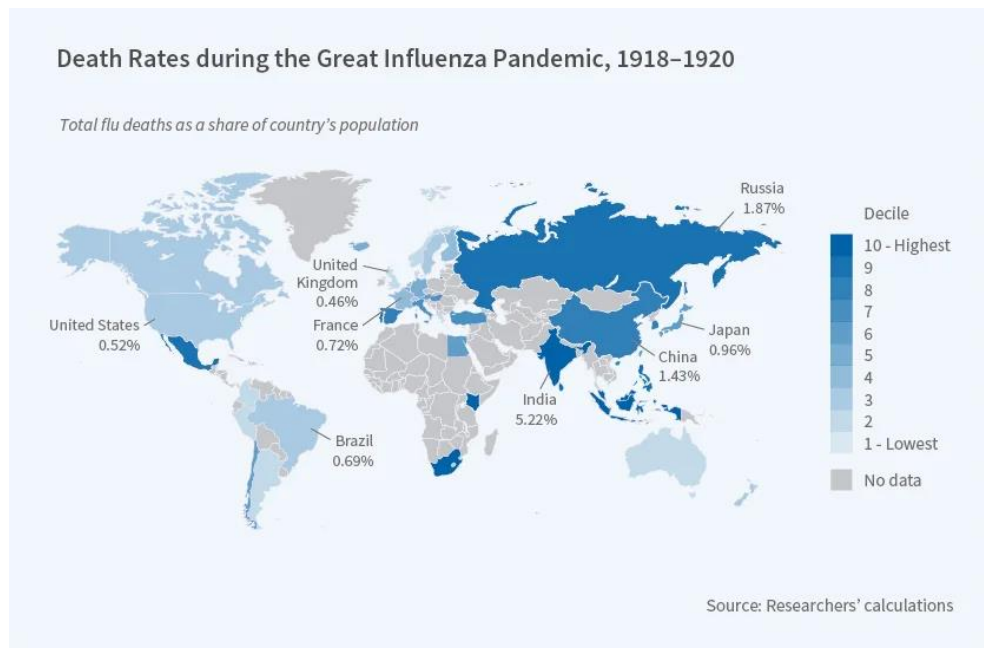


Figure 1: Death rates during the Spanish influenza, showing spread of the pandemic.²²⁸



²²⁶ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp.74-94.

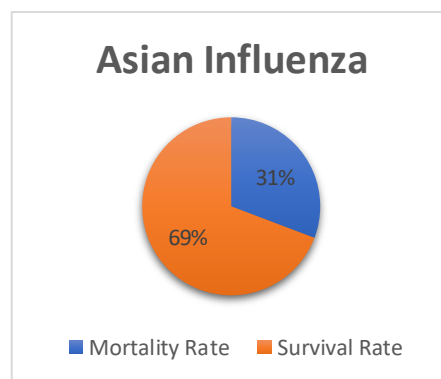
²²⁷ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, p. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35.

²²⁸ Anon, 5 May 2020., 'Social and Economic Impacts of the 1918 Influenza Epidemic', <<https://www.nber.org/digest/may20/social-and-economic-impacts-1918-influenza-epidemic>>, accessed: 7 August 2023.

3.1.2 Asian Influenza 1957 – 1958

The “Asian flu pandemic”²²⁹ emerged in February of 1957 and caused a global pandemic affecting several nations. This pandemic was the second significant outbreak of influenza to transpire during the twentieth century. However, this pandemic is often regarded as the mildest among the three influenza pandemics that occurred during the twentieth century.²³⁰ The first wave of this pandemic expanded over China and by midsummer it reached the USA, where a few individuals were afflicted. Many infections were recorded months later, particularly during a second wave in November 1957 where most of the cases were in the Northern Hemisphere. This second wave was deadlier, killing 69,800 Americans by March 1958.²³¹ (See Figure 2 and Graph 4) Other countries that struggled to contain this virus were the UK, Japan, Hong Kong, and even Germany who saw healthcare systems struggling to keep up with the patient load and schools closing. In addition, quarantine measures were put in place.²³²

Graph 4: Asian influenza mortality rate compared to survival rate.²³³



²²⁹ O. Vigsø, 'Naming is Framing: Swine Flu, New Flu, and A (H1N1)', *Observatorio (OBS*)* 4(3), 2010.

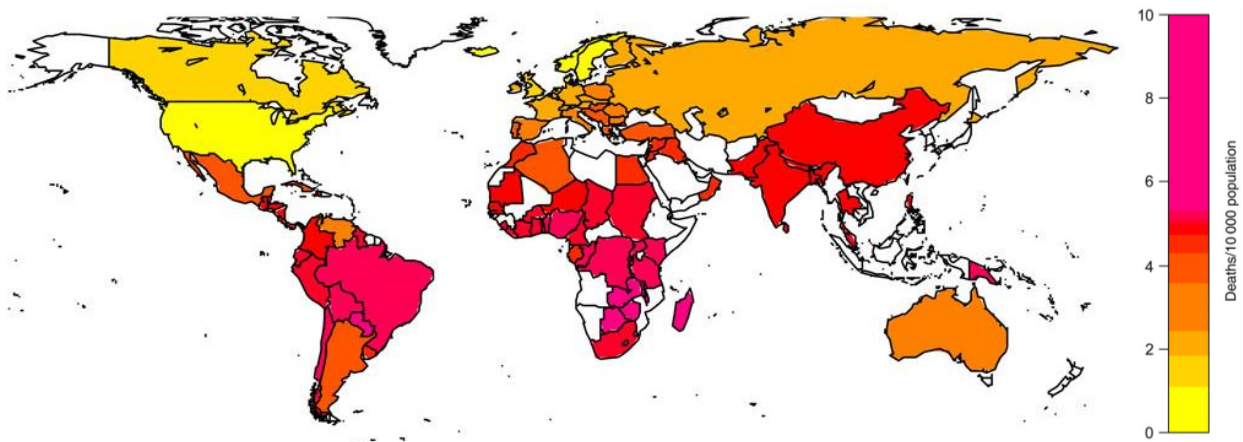
²³⁰ K. Rogers, 2020., '1957 flu pandemic', <<https://www.britannica.com/event/1957-flu-pandemic>>, accessed: 27 June 2023.

²³¹ K. Rogers, 2020., '1957 flu pandemic', <<https://www.britannica.com/event/1957-flu-pandemic>>, accessed: 27 June 2023.

²³² C. Viboud *et al.*, 'Multinational impact of the 1968 Hong Kong influenza pandemic: evidence for a smoldering pandemic', *Journal of Infectious Diseases* 192(2), 2005, pp. 233-248; J.S. Oxford & D. Gill, 'Bimodal distribution of deaths from pandemic influenza A (H2N2)', *The Lancet* 2(7631), 2010, pp. 1299-1300.

²³³ J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, pp. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

Figure 2: Global map of mortality rates during the 1957–1959 pandemic period.²³⁴



3.1.3 Hong Kong Influenza 1968 – 1970

The “Hong Kong flu pandemic”²³⁵ emerged in July 1968 and persisted until 1970. This pandemic is the third and final major influenza pandemic of the twentieth century and had a much lower Case Fatality Rate (CFR) compared to the Spanish flu pandemic. The relative mildness of the 1968 epidemic in comparison to the 1918-19 pandemic may be attributed to the fact that this viral strain of influenza may have undergone evolutionary changes originating from the type of influenza responsible for the 1957 pandemic. This meant that individuals who had previously been exposed to the 1957 virus might have possessed immunological protection against the 1968 virus due to the retention of the neuraminidase (N) antigen N2 by the new virus.²³⁶

The 1968 flu pandemic killed few people, but it was extremely infectious, allowing it to spread globally. Within two weeks of its July outbreak in Hong Kong, 500,000 cases had already been documented, and the virus spread rapidly across Southeast Asia. It reached the Panama Canal and USA within months. By late December 1968, the virus had spread over the UK, and western Europe. Australia, Japan, Africa, Eastern Europe, Central and South America were all impacted. The second wave of the epidemic killed more people

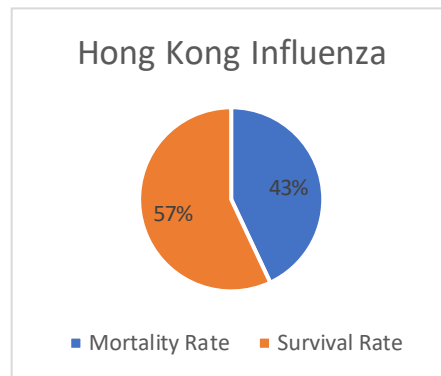
²³⁴ C.G. Viboud *et al.*, ‘Global Mortality Impact of the 1957–1959 Influenza Pandemic’, *The Journal of Infectious Diseases* 213, 2016, pp. 738-745.

²³⁵ O. Vigsø, ‘Naming is Framing: Swine Flu, New Flu, and A (H1N1)’, *Observatorio (OBS*)* 4(3), 2010.

²³⁶ K. Rogers, 2020., ‘1968 flu pandemic’, <<https://www.britannica.com/event/1968-flu-pandemic>>, accessed: 27 June 2023.

in most regions. Each country had varying impacts from this virus. In the USA the disease was widespread and devastating causing a significant number of deaths, whereas in Japan it was dispersed and harmed few individuals with minimal deaths. After the pandemic spread to several nations, a viral vaccine was produced which further reduced the impacts of the pandemic.²³⁷ (See Graph 5)

Graph 5: Hong Kong influenza mortality rate compared to survival rate.²³⁸



3.1.4 Ebola Virus Disease 1976 – Present

EVD, formerly referred to as Ebola haemorrhagic fever, and colloquially known as “Ebola”²³⁹ is a highly transmissible illness caused by a virus belonging to the Filoviridae family. This viral infection is known to induce a severe and sometimes lethal condition characterised by viral haemorrhagic fever.²⁴⁰ (See Graph 6) The onset of this pandemic can be traced back to 1976, and its impact has extended into the current era of the twenty-first century. This epidemic has garnered more prominence compared to the preceding two influenza pandemics due to its high CFR. Ebolaviruses have been seen to result in

²³⁷ K. Rogers, 2020., '1968 flu pandemic', <<https://www.britannica.com/event/1968-flu-pandemic>>, accessed: 27 June 2023.

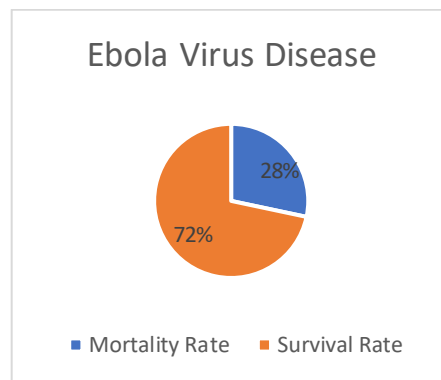
²³⁸ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

²³⁹ M.O. Afolabi *et al.*, 'Lessons from the Ebola epidemics and their applications for COVID-19 pandemic response in sub-Saharan Africa', *Developing world bioethics* 21(1), 2021, pp. 25-30.

²⁴⁰ A.M. Marty *et al.*, 'Viral hemorrhagic fevers', *Clinics in laboratory medicine* 26(2), 2006, pp. 345-386.

mortality rates ranging from 25 to 90 percent in human populations.²⁴¹ Since 1976, more than 25 known outbreaks of EVD have occurred in the world, but have mostly been prevalent in Africa and more specifically West Africa.²⁴² The virus derives its name from the Ebola River situated in the northern Congo basin in central Africa, which serves as the first site of its emergence. There have been five distinct species of ebola viruses that have been identified and named based on the sites of their respective outbreaks. Ebola viruses are related to the Marburgvirus, a viral genus that was first identified in 1967.²⁴³

Graph 6: Ebola Virus Disease mortality rate compared to survival rate.²⁴⁴



The earliest outbreaks in 1976 in Zaire, (now the Democratic Republic of the Congo (DRC)), and Sudan, including now South Sudan, killed about 400 people.²⁴⁵ Later outbreaks in Uganda in 2000 and the DRC in 2002 killed several hundred people. Kasai-Occidental (West Kasai) province in the south-central DRC reported an epidemic in September 2007 and reported a second epidemic in December 2008.²⁴⁶ By early 2009,

²⁴¹ N. Sifolo & P.P.S. Sifolo, 'The tourism inconvenience of the Ebola epidemic: lessons for the South African tourism sector', *African Journal of Hospitality, Tourism and Leisure* 4(1), 2015, pp. 1-11.

²⁴² Centers for Disease Control and Prevention (CDC), 2023., 'Ebola outbreaks 2000-2014', <<http://www.cdc.gov/vhf/ebola/outbreaks/history/summaries.html>>, accessed: 27 June 2023.

²⁴³ The Editors of Encyclopaedia Britannica, 2023., 'Ebola', <<https://www.britannica.com/science/Ebola>>, accessed: 27 June 2023.

²⁴⁴ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

²⁴⁵ A. Roca *et al.*, 'Ebola: a holistic approach is required to achieve effective management and control', *Journal of Allergy and Clinical Immunology* 135(4), 2015, pp. 856-867.

²⁴⁶ G. Ozbay *et al.*, 'A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry', *International Hospitality Review* 36(1), 2022, pp. 65-82.

a further Ebola outbreak was reported. West African countries including Guinea, Sierra Leone, and Liberia were hit hard by the 2014–16 outbreak where over 28 600 cases and 11 300 fatalities were reported by January 2016.²⁴⁷

Existing preventative and treatment techniques had previously managed these outbreaks rather well, but the 2014 outbreak was hampered by limited health staff and misconceptions about the illness among some afflicted residents. After a dramatic surge in cases that hampered humanitarian operations, on August 8 2014, WHO Director General, Margaret Chan, declared the epidemic a public health emergency of international concern.²⁴⁸ Soon, the Ebola virus surfaced in the USA when an individual, who had just travelled from Liberia to Dallas, Texas by airplane, subsequently exhibited signs of sickness and ultimately succumbed to the disease.²⁴⁹ This was the first instance in which a case linked to the epidemic was identified outside the confines of Africa. Around the same period, Spanish health authorities documented the occurrence of Ebola transmission inside the territorial boundaries of Spain.²⁵⁰ In addition to Africa, Ebola spread to Asia, Europe, and America though these were small outbreaks. Liberia, Sierra Leone, and Guinea suffered the highest case numbers and therefore had the greatest economic impact from the pandemic.²⁵¹ In the first half of 2020, Ebola vaccination development continued, but the COVID-19 pandemic took over and Ebola vaccines were put on the back burner.²⁵² (See Figure 3)

²⁴⁷ S. Baize *et al.*, 'Emergence of Zaire Ebola virus disease in Guinea', *New England Journal of Medicine* 371(15), 2014, pp. 1418-1425.

²⁴⁸ R. Maconachie & G. Hilson, 'The war whose bullets you don't see: Diamond digging, resilience and Ebola in Sierra Leone', *Journal of rural studies* 61, 2018, pp. 110-122.

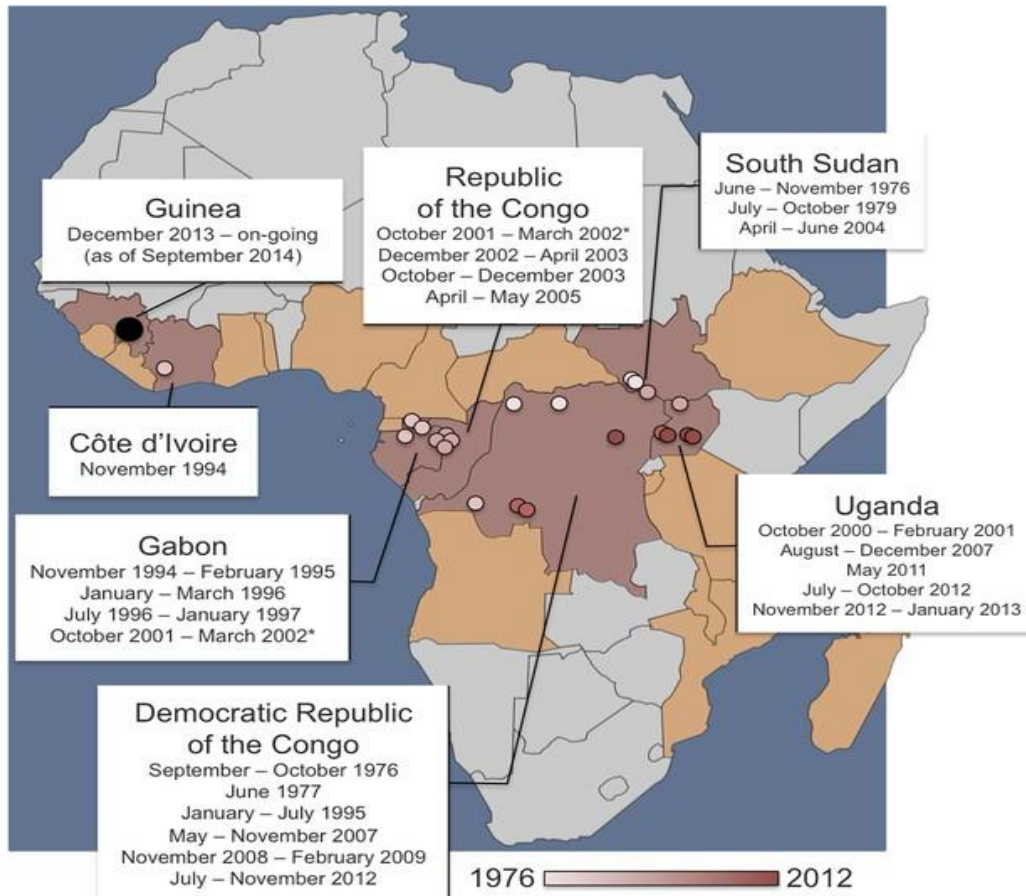
²⁴⁹ H. Feldmann & T.W. Geisbert, 'Ebola haemorrhagic fever', *The Lancet* 377(9768), 2011, pp. 849-862.

²⁵⁰ N. Sifolo & P.P.S. Sifolo, 'The tourism inconvenience of the Ebola epidemic: lessons for the South African tourism sector', *African Journal of Hospitality, Tourism and Leisure* 4(1), 2015, pp. 1-11.

²⁵¹ G. Ozbay *et al.*, 'A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry', *International Hospitality Review* 36(1), 2022, pp. 65-82.

²⁵² The Editors of Encyclopaedia Britannica, 2023., 'Ebola', <<https://www.britannica.com/science/Ebola>>, accessed: 27 June 2023; A. Roca *et al.*, 'Ebola: a holistic approach is required to achieve effective management and control', *Journal of Allergy and Clinical Immunology* 135(4), 2015, pp. 856-867.

Figure 3: Dates and locations of outbreaks of Ebola Virus Disease in humans.²⁵³



3.2 Navigating the Impact on Tourism through Adaptive Policies

The travel and tourism sector, which plays a vital role in several economies, exhibited heightened susceptibility to the disruptions brought about by these pandemics. The implementation of travel restrictions, heightened apprehension over infection risks and prioritisation of public health considerations all contributed to substantial reductions in travel and tourist engagements.²⁵⁴ The travel and tourism sector, which serves as a dynamic foundation for several economies, experienced the primary impact of these pandemics. The occurrence of these crises triggered a series of disturbances within the sector, including a significant decline in tourist arrivals, cautious consumer conduct and

²⁵³ S. Funk & P. Piot, 19 September 2014., 'Mapping Ebola in wild animals for better disease control' <<https://elifesciences.org/articles/04565>>, accessed: 27 June 2023.

²⁵⁴ D.L. Heymann *et al.*, 'Global health security: the wider lessons from the west African Ebola virus disease epidemic', *The Lancet* 385(9980), 2015 pp. 1884-1901.

unparalleled financial pressures. The implementation of travel restrictions and border closures, aimed at mitigating the transmission of infectious agents, created an unfavourable atmosphere for both recreational and business-related travel.²⁵⁵

The tourist sector experiences a greater impact from epidemics due to the implementation of travel restrictions by governments, which results in decreased levels of both domestic and international travel. Hence, the tourism and hospitality industries are often characterised as the sectors that experienced the first adverse effects during an epidemic.²⁵⁶ It is generally recommended that tourism firms and locations that are susceptible to pandemic illnesses should establish and execute comprehensive strategic strategies.²⁵⁷ Throughout the course of human history, pandemic illnesses have been a recurring occurrence, resulting in substantial loss of life and yielding various psychological, economic, and societal consequences. It is widely acknowledged that each subsequent pandemic will serve as a point of reference for future pandemics. To derive conclusions about the impact of COVID-19 on the tourist sector, it is essential to scrutinise the circumstances that transpired during prior pandemics.²⁵⁸

These various pandemics prompted governments and international agencies to create and execute strategies to stop the respective spreads. Vigilance increased as border restrictions, health inspections, and quarantine processes grew more frequent across the globe. Travel prohibitions exacerbated the public health-mobility conflict. Global public

²⁵⁵ R. Vaidya *et al.*, 'Travel restrictions and infectious disease outbreaks', *Journal of travel medicine* 27(3), 2020. pp. taaa050.

²⁵⁶ S. Bharwani & D. Mathews, 'Risk identification and analysis in the hospitality industry: practitioners' perspectives from India', *Worldwide Hospitality and Tourism Themes* 4(5), 2012, pp. 410-427; K.U. Menon & K.T. Goh, 'Transparency and trust: risk communications and the Singapore experience in managing SARS', *Journal of Communication Management* 9(4), 2005, pp. 375-383; G. Ozbay *et al.*, 'A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry', *International Hospitality Review* 36(1), 2022, pp. 65-82.

²⁵⁷ A. Bhati *et al.*, 'National disaster management in the ASEAN-5: an analysis of tourism resilience', *Tourism Review* 71(2), 2016, pp. 148-164. I. Cahyanto *et al.*, 'The dynamics of travel avoidance: the case of Ebola in the US', *Tourism Management Perspectives* 20, 2016, pp. 195-203; P.J. Tew *et al.*, 'SARS: Lessons in strategic planning for hoteliers and destination marketers', *International Journal of Contemporary Hospitality Management* 20(3), 2008, pp. 332-346; G. Ozbay *et al.*, 'A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry', *International Hospitality Review* 36(1), 2022, pp. 65-82.

²⁵⁸ G. Ozbay *et al.*, 'A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry', *International Hospitality Review* 36(1), 2022, pp. 65-82.

health generally prioritises case isolation, home quarantine, workplace and school closures and travel restrictions to reduce the severity of a new epidemic.²⁵⁹ Planning and using information gathered from previous outbreaks were essential in deriving ideas to curb the impacts of subsequent outbreaks. Pandemics prompted governments and international organisations to create policies to limit and mitigate disease transmission. Border closures, travel warnings, health inspections, and quarantines became standard travel regulations. These pandemics prompted governments and international agencies to create and execute strategies to stop the spread. Vigilance increased as border restrictions, health inspections, and quarantine processes grew more frequent.²⁶⁰

Crisis management reduces the harmful effects of crises and supports recovery.²⁶¹ Crisis management is defined as “an ongoing integrated and comprehensive effort that organisations effectively put in place in an attempt to first and foremost understand and prevent crisis, and to effectively manage those that occur, taking into account in each and every step of their planning and training activities, the interest of their stakeholders”.²⁶² Due to the fragmented tourist industry, political and social backdrop of the crisis site, and unique features and length of each crisis, developing and executing good crisis management policies and strategies is difficult. It is suggested that many general crisis models give management direction for a specific crisis, but they are linear and fail to address health crisis complexity. Crisis management must protect visitors and the community and preserve or restore the tourism business.²⁶³ Destinations must prepare immediate and long-term, knowing how visitors respond to crises. Therefore, crisis perspectives vary by place, organisation and politics.²⁶⁴ Risk and precautionary norms

²⁵⁹ N.M. Ferguson *et al.*, ‘Strategies for mitigating an influenza pandemic’, *Nature* 442(7101), 2006, pp. 448–452; C.E. Mills *et al.*, ‘Transmissibility of 1918 pandemic influenza’, *Nature* 432(7019), 2004, pp. 904–906.

²⁶⁰ L. Budd *et al.*, ‘Of plagues, planes and politics: Controlling the global spread of infectious diseases by air’, *Political Geography* 28(7), 2009, pp. 426–435.

²⁶¹ D. Glaesser, ‘Crisis management in the tourism industry’, p. 224.

²⁶² G. Santana, ‘Crisis management and tourism’, *Journal of Travel & Tourism Marketing* 15(4), 2004, pp. 299–321.

²⁶³ B. Prideaux *et al.*, ‘Events in Indonesia: Exploring the limits to formal tourism trends forecasting methods in complex crisis situations’, *Tourism Management* 24(4), 2003, pp. 475–487; B. McKercher, ‘A chaos approach to tourism’, *Tourism Management* 20, 1999, pp. 425–434.

²⁶⁴ M. Speakman & R. Sharpley, ‘A Chaos theory perspective on destination crisis management: Evidence from Mexico’, *Journal of Destination Marketing & Management* 1, 2012, pp. 67–77; B. Beach *et al.*, ‘The

and the acceptance of various outcomes also vary by culture.²⁶⁵ Moreover, crisis management strategies rely on timing, control, and event size.²⁶⁶ Crisis choices may be critical to the destination's long-term recovery, particularly for media involvement and management. Most tourist recovery methods are reactive and involve government assistance packages that (re)focus on domestic tourism and niche tourism product creation, as well as industry cost-cutting during a crisis.²⁶⁷ Finally, destination recovery depends on risk perception, which is critical to understanding visitors' safety and security concerns.²⁶⁸

3.2.1 Spanish Influenza

The 1918 Spanish influenza pandemic weakened the travel and tourism industries. This was an exceptional influenza pandemic because it was widespread and occurred after significant advances in infectious disease research and technological innovations.²⁶⁹ When investigating the policies implemented and the tourism impact it is crucial to remember WW1's presence because it is hard to separate it from the pandemic. WW1 happened between July 1914 until November 1918 which meant that this pandemic occurred as WW1 was drawing to an end. Most economies and hospitality type industries were already devastated by wartime damage and resource diversion.²⁷⁰ The War caused

1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

²⁶⁵ B. Ritchie, 'Chaos, crisis and disasters: A strategic approach to crisis management in the tourism industry', *Tourism Management* 25, 2004, pp. 669–683; B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

²⁶⁶ U. Beck, 'Living in the world risk society', *Economy and Society* 35(3), 2006, pp. 329–345.

²⁶⁷ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

²⁶⁸ C.B. Alan *et al.*, 'Crisis management and recovery: How restaurants in Hong Kong responded to SARS', *International Journal of Hospitality Management* 25(1), 2006, pp. 3-11; C. Enz & M. Taylor, 'The safety and security of U.S. hotels: A post-September-11 report', *Cornell Hotel and Restaurant Administration Quarterly* 43(5), 2002, pp. 119–136.

²⁶⁹ M. Alsan & C. Goldin, 'Watersheds in child mortality: the role of effective water and sewerage infrastructure, 1880-1920', *Journal of Political Economy* 127(2), 2019, pp. 586-638; J.P. Ferrie & W. Troesken, 'Water and Chicago's mortality transition, 1850-1925' *Explorations in Economic History* 45(1), 2008, pp. 1-16; B. Beach *et al.*, 'Typhoid fever, water quality, and human capital formation', *The Journal of Economic History* 76(1), 2016, pp. 41-75; S. Jayachandran, 'Modern medicine and the twentieth century decline in mortality: Evidence on the impact of sulfa drugs', *American Economic Journal: Applied Economics* 2(2), 2010, pp. 118-146.

²⁷⁰ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

global instability, which led to a reduced quality of life and a poor life expectancy which became exacerbated by the outbreak of the influenza. From 1900 to 1940, the global average life expectancy grew from 47 to 57, that number has since risen to 67 by the year 2000.²⁷¹ Another factor that reduced life expectancy was that in the nineteenth and early twentieth centuries, dirty cities made death due to infectious disease more likely.²⁷²

Due to the historical nature of this pandemic, as well as the overlap with WW1, many of the policies, such as social distancing regulations, were not as widely recorded as more recent pandemic outbreaks. This historical nature has resulted in a large amount of ambiguity which has made research into this pandemic more important. Compliance with policies such as social distancing standards was a concern for research at the time. Non-pharmaceutical interventions (NPI) compliance seldom goes beyond anecdotal evidence for older pandemics, unlike the COVID-19 pandemic where researchers can use cell-phone data to evaluate compliance.²⁷³

WW1 increased the pandemic's global spread. As mentioned, the multinational troop movement dispersed the illness, and tens of thousands of soldiers perished from the influenza pandemic, rather than from fighting on the battlefield. To stop the spread of the virus, borders were closed, quarantine rules were enforced, and movement was somewhat restricted. Since WW1 had already prevented travel, these regulations further disrupted travel for all purposes. Doctors were not needed for the War anymore as it had come to an end, so governments were able to prioritise the influenza outbreak and reallocate healthcare workers to disease control and management.²⁷⁴ Cholera and Tuberculosis (TB) had been under control thanks to public health efforts, but despite decades of microbiological discoveries and previous healthcare victories, the 1918

²⁷¹ J.J. Feigenbaum *et al.*, 'Regional and racial inequality in infectious disease mortality in US cities, 1900-1948', *Demography* 56(4), 2019, pp. 1371-1388; D.L. Costa, 'Health and the Economy in the United States from 1750 to the Present', *Journal of Economic Literature* 53(3), 2015, pp. 503-570.

²⁷² D.L. Costa, 'Health and the Economy in the United States from 1750 to the Present', *Journal of Economic Literature* 53(3), 2015, pp. 503-570.

²⁷³ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

²⁷⁴ J. Smith, 'Spanish flu: the global impact of the 1918-1919 influenza pandemic', *Social History of Medicine* 31(2), 2018, pp. 431-454.

influenza pandemic's origin remained a cause for concern.²⁷⁵ There was originally little evidence that an influenza epidemic could not be contained.²⁷⁶

As indicated above, the pandemic's origin was unknown, thus several therapeutic and preventive measures were tried. Drugs and homemade cures such as mustard poultice, quinine, tobacco, beef tea, zinc sulphate inhalation, opium, salt water and alcohol were used.²⁷⁷ Traditional Eastern treatment, including Japanese Kanpo medicine (herbal medicines and green tea), may have helped lower fever by increasing sweat, boosting vitamin C levels, and replenishing fluids.²⁷⁸ Traditional Chinese medicine may have also decreased influenza severity in some people.²⁷⁹ However, few effective therapeutic and preventive therapies actually worked. Nursing care helped patients recover, particularly those with subsequent bacterial pneumonia.²⁸⁰ In mining complexes, death rates were greater due to lack of nursing care since many health care professionals were still abroad as a result of being stationed in another country for WW1. Unfortunately, during the 1918–19 epidemic, many of these health care workers were abroad or unwell.²⁸¹

In 1918, several methods were used to control influenza and treat sufferers. Although many of these efforts failed, they provided valuable insights for future influenza pandemic preparation. In 1918, as the second wave of influenza got severe, several nations quarantined all arriving ships to prevent its spread, this included the isolation of troops and medical professionals returning from WW1. Spanish flu influenced ship transport

²⁷⁵ H.L. Hildreth, 'The influenza epidemic of 1918-1919 in France: contemporary concepts of aetiology, therapy, and prevention', *Social History of Medicine* 4(2), 1991, pp. 277–294; S.M. Tomkins, 'The influenza epidemic of 1918–19 in Western Samoa', *The Journal of Pacific History* 27(2), 1992, pp. 181–197.

²⁷⁶ E. Tognotti, 'Scientific triumphalism and learning from facts: bacteriology and the "Spanish flu" challenge of 1918', *Social History of medicine* 16(1), 2003, pp. 97-110.

²⁷⁷ A.W. Keeling, 'Alert to the necessities of the emergency: U.S. nursing during the 1918 influenza pandemic', *Public Health Reports* 125(3_suppl), 2010, pp. 105-112.

²⁷⁸ E. Palmer & G.W. Rice, 'A Japanese physician's response to pandemic influenza, Ijirō Gomibuchi and the "Spanish flu" in Yaita-Chō, 1918-1919', *Bulletin of the History of Medicine* 66(4), 1992, pp. 560-577.

²⁷⁹ M. Kobayashi *et al.*, 'Antiviral effect of gingyo-san, a traditional Chinese herbal medicine, on influenza A2 virus infection in mice', *The American journal of Chinese medicine* 27(01), 1999, pp. 53-62.

²⁸⁰ K.R. Robinson, 'The role of nursing in the influenza epidemic of 1918–1919', In *Nursing Forum* 25(2), 1990, pp. 19-26.

²⁸¹ I.R. Phimister, 'The "Spanish" influenza pandemic of 1918 and its impact on the Southern Rhodesian mining industry', *Central African Journal of Medicine* 19(7), 1973, pp. 143-148; K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

much like recent pandemics. Flying to destinations was not a common form of travel, so therefore many people travelled by ship. The virus spread through ships, raising public health worries and generated bad impressions of ships. Therefore, travel was seen negatively because of its relationship with sickness. People who were sick or suspected of being infectious were confined and travellers were quarantined upon arrival. This initiative often failed because quarantine efforts were unequally given out and un-symptomatic infected people transmitted it to others. Sometimes quarantine was instituted too late or not for long enough and the virus was already in the country.²⁸²

The UK and South Africa considered sea quarantine ineffective and unworkable.²⁸³ Before any second-wave casualties were recorded, Australia enforced a marine quarantine.²⁸⁴ Commonwealth quarantine officials checked all inbound ships before allowing any passengers to disembark.²⁸⁵ Before the quarantine was lifted in December 1918, Australia avoided the second pandemic wave through these effective maritime quarantine measures,²⁸⁶ and indirectly protected Pacific Islands that were dependent on Australian supply ships.²⁸⁷ During the second and third waves of the pandemic, one-third of ships arriving in Australia were infected which resulted in them having to quarantine for longer. Australia ended up having just half the influenza mortality rate of the USA.²⁸⁸ This was especially evident in the mortality gap between American and Western Samoa. The USA Governor of American Samoa instituted a naval quarantine in 1918. This quarantine

²⁸² N. Johnson, 'Britain and the 1918-19 Influenza Pandemic: A Dark Epilogue', p. 112; J.M. Barry, 'The Great Influenza: The Story of the Deadliest Pandemic in History', p. 31.

²⁸³ J.W. Tang, 'Pandemic influenza forecasting: Does past performance indicate future performance?', *American journal of infection control* 36(7), 2008, pp. 466-467.

²⁸⁴ S.M. Tomkins, 'The influenza epidemic of 1918-19 in Western Samoa', *The Journal of Pacific History* 27(2), 1992, pp. 181-197.

²⁸⁵ D.E. Blakely, 'Mass Mediated Disease: A Case Study Analysis of Three Flu Pandemics and Public Health Policy', p. 91.

²⁸⁶ N. Johnson, 'Britain and the 1918-19 Influenza Pandemic: A Dark Epilogue', p. 122.

²⁸⁷ G.D. Shanks *et al.*, 'The unusually diverse mortality patterns in the Pacific region during the 1918-21 influenza pandemic: reflections at the pandemic's centenary', *The Lancet Infectious Disease* 18(10), 2018, pp. 323-332; K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

²⁸⁸ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84; N.P. Johnson & J. Mueller, 'Updating the accounts: global mortality of the 1918-1920 "Spanish" influenza pandemic', *Bulletin of the History of Medicine*, 2002, pp.105-115; K.D. Patterson & G.F. Pyle, 'The geography and mortality of the 1918 influenza pandemic', *Bulletin of the History of Medicine* 65(1), 1991, pp. 4-21.

kept influenza out, and thus American Samoa had no 1918 influenza fatalities.²⁸⁹ In contrast, Western Samoa (100 km away) did not enforce rigorous marine quarantine.²⁹⁰ The “Talune”,²⁹¹ a New Zealand cargo ship, contaminated Western Samoa, killing almost a quarter of the population with influenza.²⁹²

Later-hit cities were able to close schools and churches and restrict trade to reduce influenza-related deaths, which may have reduced mortality rates.²⁹³ Tourism suffered because people could not or would not travel for pleasure or business. Fear of acquiring the virus reduced travel, therefore travelling to crowded venues for events was unpopular. Events and public meetings were cancelled to avoid congestion at mass gatherings. This included cancelling or delaying tourism events which ended up hurting local tourism enterprises. This reputation and travel restrictions slowed the industry impacting hotels, restaurants, and other businesses and had long-term effects on the overall travel and tourism sector.²⁹⁴ Another factor reducing the mortality rate is that similar to other influenzas, its virulence and infectiousness lessens over time.²⁹⁵

The 1918 influenza was noteworthy because the mortality age was an anomaly, 18 to 40-year-olds were the age group that succumbed most which is not typical for an influenza.²⁹⁶ However, mortality varied greatly within and across nations.²⁹⁷ General estimates imply that there were between 2.5–5 deaths per every 1 000 people globally. This estimate may

²⁸⁹ G.D. Shanks & J.F. Brundage, ‘Pacific islands which escaped the 1918–1919 influenza pandemic and their subsequent mortality experiences’ *Epidemiology & Infection* 141(2), 2013, pp. 353–356.

²⁹⁰ S.M. Tomkins, ‘The influenza epidemic of 1918–19 in Western Samoa’, *The Journal of Pacific History* 27(2), 1992, pp. 181–197.

²⁹¹ K.R. Short *et al.*, ‘Back to the future: lessons learned from the 1918 influenza pandemic’, *Frontiers in celluar and infection microbiology* 8, 2018, p. 8.

²⁹² K.R. Short *et al.*, ‘Back to the future: lessons learned from the 1918 influenza pandemic’, *Frontiers in celluar and infection microbiology* 8, 2018, pp. 1–19.

²⁹³ B. Beach *et al.*, ‘The 1918 influenza pandemic and its lessons for COVID-19’, *Journal of Economic Literature* 60(1), 2022, pp. 41–84.

²⁹⁴ L. Spinney, ‘The Spanish flu: an interdisciplinary problem’, *The Lancet* 392(10164), 2018, p. 2552.

²⁹⁵ T.A. Garrett, ‘Economic effects of the 1918 influenza pandemic’, *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74–94; B. Beach *et al.*, ‘The 1918 influenza pandemic and its lessons for COVID-19’, *Journal of Economic Literature* 60(1), 2022, pp. 41–84.

²⁹⁶ I.D. Mills, ‘The 1918-1919 influenza pandemic—the Indian experience’, *The Indian Economic & Social History Review* 23(1), 1986, pp. 1–40.

²⁹⁷ N.P. Johnson & J. Mueller, ‘Updating the accounts: global mortality of the 1918-1920 “Spanish” influenza pandemic’ *Bulletin of the History of Medicine* 76, 2002, pp. 105–115.

be accurate for some countries (e.g., Australia (2.8/1 000), Austria (3/1 000), Denmark (4.1/1 000)), but it overestimates others (Argentina (1.2/1 000), Uruguay (1.4/1 000), American Samoa (0/1 000)). These findings suggest that government interventions, along with viral factors, affected mortality outcomes.²⁹⁸

Most cities used basic NPI measures to stop the virus in 1918.²⁹⁹ These included restricting person-to-person transmission during social events.³⁰⁰ To avoid overpopulation, schools, theatres, churches, and dance halls were shuttered and marriages and funerals were forbidden.³⁰¹ Cities that adopted these NPI measures within days of the first local cases had a lower peak mortality rate than those that waited weeks.³⁰² The date of intervention removal also influenced mortality rate.³⁰³ While limitations on meetings reduced influenza virus transmission this did not hold the outbreak off for long, the limitations were often lifted after only 2–8 weeks, allowing viral transmission to resume.³⁰⁴

Facemasks or face coverings have always been a popular pandemic prevention method. When it comes to the 1918 pandemic, people believed that it was airborne and that wearing a facemask would prevent illnesses.³⁰⁵ Accordingly, Guatemala City, San Francisco, and several Japanese prefectures required public facemask use and special task forces and education campaigns enforced this law.³⁰⁶ Masks were distributed to people to try and control the spread of the influenza. According to these regulations, to

²⁹⁸ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

²⁹⁹ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

³⁰⁰ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

³⁰¹ M.C. Bootsma & N.M. Ferguson, 'The effect of public health measures on the 1918 influenza pandemic in U.S. cities', *Proceedings of the National Academy of Sciences* 104(18), 2007, pp. 7588–7593.

³⁰² R.J. Hatchett *et al.*, 'Public health interventions and epidemic intensity during the 1918 influenza pandemic', *Proceedings of the National Academy of Sciences* 104(18), 2007, pp. 7582-7587.

³⁰³ M.C. Bootsma & N.M. Ferguson, 'The effect of public health measures on the 1918 influenza pandemic in U.S. cities', *Proceedings of the National Academy of Sciences* 104(18), 2007, pp. 7588–7593.

³⁰⁴ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

³⁰⁵ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

³⁰⁶ A.W. Crosby, *America's Forgotten Pandemic: The Influenza of 1918*, p. 101.

be effective against influenza virus, a facemask must be worn at all times, well-constructed and fitted, and made of suitable material.³⁰⁷ In 1918 medical gauze masks generally failed these tests. Evidence of this is apparent by comparing two separate Canadian states Ontario, where mask wearing was optional, had a similar death rate as Alberta, where mask wearing was mandatory.³⁰⁸ Even after mask wearing was enforced in Alberta, influenza mortality increased, demonstrating that these facemasks were not an effective deterrent and did not reduce influenza deaths.³⁰⁹

Since influenza viruses can be transmitted by hand-to-face contact, and thus it is believed that proper hygiene such as regular hand washing would have helped to reduce the infection rate of the outbreak.³¹⁰ Since Japanese children were encouraged to remove their shoes and wash their hands upon arriving at school and returning home, the Japanese traditional approach to sickness and illness may have reduced this pandemic's mortality rate.³¹¹ The 1918 pandemic has shown that measures are most effective when they are voluntary, as people have a low tolerance for mandatory health measures. When people were given the choice to wear facemasks, they were more likely to wear them.³¹² During the influenza pandemic, local health departments had the challenge of planning for and containing the spread of the illness without the aid of contemporary monitoring techniques or the capacity to implement a nationwide vaccination effort. The implementation of sanitarian techniques, such as street cleaning, refuse removal, clean water provision, public disposal of dead influenza victims, and milk and food product inspection, had been recognised as authorised undertakings of the government through the establishment of local health departments.³¹³

³⁰⁷ G.W. Rice & E. Palmer, 'Pandemic influenza in Japan, 1918–19, mortality patterns and official responses', *Journal of Japanese Studies* 19(2), 1993, pp. 389–420.

³⁰⁸ A.W. Crosby, *America's Forgotten Pandemic: The Influenza of 1918*, p. 297.

³⁰⁹ H. MacDougall, 'Toronto's health department in action: influenza in 1918 and SARS in 2003', *Journal of the History of Medicine and Allied Sciences* 62(1), 2007, pp. 56–89.

³¹⁰ Y. Thomas *et al.*, 'Survival of influenza virus on human fingers', *Clinical Microbiology and Infection* 20(1), 2014, pp. 58–64.

³¹¹ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in Cellular and Infection Microbiology* 8, 2018, p. 343.

³¹² L. Spinney, 'The Spanish flu: an interdisciplinary problem', *The Lancet* 392(10164), 2018, pp. 2552.

³¹³ D. Rosner, 'Spanish Flu, or Whatever it Is....: The Paradox of Public Health in a Time of Crisis', *Public Health Reports* 125(3), 2010, pp. 37–47.

3.2.2 Asian Influenza

The 1957 Asian influenza pandemic policies differed by nation and area based on medical understanding available to governments and policy makers, public health measures and government reactions. Although there are only a few sources on policy-specific materials from that time, historical records and scholarly studies provide some insight into the actions initiated in an attempt to restore the globe to some form of normality.³¹⁴ The Asian influenza pandemic saw these broad tactics and techniques being implemented.

People feared infection while travelling so as a result people chose to stay home or travel to areas relatively close to their homes to limit exposure. In general, travellers appeared to grow more cautious and changed their habits.³¹⁵ People infected with the virus and their people they had been closely in contact with were isolated to stop transmission. Each country had varying quarantine protocols which differed in time frame and intensity. Isolating and treating patients was vital to prevent hospitals from being overwhelmed with infected people. This was often done in large rooms with many patients together.³¹⁶ Communities were urged to report symptoms, engage in prevention, follow recommendations and seek medical treatment as required. This community involvement helped with the recovery.³¹⁷ Travel restrictions and border controls were introduced in several countries to prevent the virus from spreading. Limited international mobility slowed down tourism-dependent economies' revival. Enhanced disease monitoring and reporting mechanisms were set up to track the virus's spread and public health effects. Health monitoring at borders, isolation and quarantine were established by governments in an attempt to reduce the chances of the influenza entering the country. Some countries began to screen travellers for infectious diseases at borders by checking temperatures and observing flu-like symptoms.³¹⁸

³¹⁴ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

³¹⁵ B. Harris & N. Andrews, 'Economic performance of the UK tourism sector in a global context: Analysis of 1950–2019 international tourism arrivals', *Current Issues in Tourism* 1-20, 2020.

³¹⁶ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

³¹⁷ C.E. Mills *et al.*, 'Transmissibility of 1918 pandemic influenza', *Nature* 432(7019), 2004, pp. 904-906.

³¹⁸ P. Shetty, 'Looking Back: The Asian Influenza Pandemic and Tourism Industry', *Worldwide Hospitality and Tourism Themes* 9(1), 2017, pp. 39-49.

Public health initiatives taught people how to avoid crowds, and how to conceal coughs and sneezes. Public areas, tourist sites and activities were closed or cancelled to stop the spread of infection across large areas. Many governments eventually removed restraints on public meetings, travel and corporate activities as the epidemic subsided. This method of relaxing the restrictions helped to balance out economic recovery with public health.³¹⁹ Masks were again introduced as a NPI to try prevent the disease from spreading, these masks had minor changes as their design had been updated.³²⁰ Global supply networks and economic links were interrupted by the outbreak, thereby harming tourism.³²¹ Many nations temporarily closed schools and colleges to prevent viral transmission among students and teachers.³²² To decrease transmission, regular handwashing, personal hygiene and public space cleanliness were advised. Education prevented viral transmission and promoted safer behaviours.³²³

Medical knowledge, public health policies, and government interventions affected recovery. Antivirals were utilised to treat severe cases and reduce virus effects. Pandemics emphasised the need for greater healthcare infrastructure. Some nations improved hospitals, enlarged numbers of healthcare workers and increased disease monitoring. An international reaction and information exchange among countries and health organisations helped limit the epidemic. Governments informed the public via health agencies and communication initiatives and government strategies that adapted to changing knowledge and circumstances improved responsiveness.³²⁴ After the H2N2 vaccine was created, widespread vaccination began.³²⁵ The vaccine targeted high-risk

³¹⁹ H. Markel *et al.*, 'Nonpharmaceutical interventions implemented by US cities during the 1918-1919 influenza pandemic', *JAMA* 298(6), 2007, pp. 644-654.

³²⁰ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

³²¹ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

³²² J.M. Barry, '*The Great Influenza: The Story of the Deadliest Pandemic in History*', p. 45.

³²³ J.M. Barry, '*The Great Influenza: The Story of the Deadliest Pandemic in History*', p. 48.

³²⁴ C.E. Mills *et al.*, 'Transmissibility of 1918 pandemic influenza', *Nature* 432(7019), 2004, pp. 904-906.

³²⁵ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

populations and healthcare staff and helped suppress the pandemic and prevent future ones.³²⁶

Governments could have implemented some general strategies to support the travel and tourism industries better. Some of these factors included: governments might have worked better to inform the public, tourism sector stakeholders and foreign partners on the emergence of this infection. Clear and consistent information about the virus's effect, safety measures and travel warnings would have boosted travel confidence. Governments may also have encouraged travel and tourism-specific health and safety measures. These steps may have included improved cleanliness, transit hub health examinations and accommodation requirements.³²⁷

Moreover, grants and tax relief may have helped travel and tourism firms survive the slump and retain staff. Travel companies could have encouraged tourists to continue their travel plans in a more cautious manner and governments may have temporarily reduced travel laws or costs. International partnerships between governments and health organisations might have standardised travel standards and procedures, decreasing uncertainty and easing international travel. Domestic travel could have been a saving point by marketing local attractions, locations and activities that might have offset declining international tourism. Governments and businesses might also have alleviated traveller worries by being transparent about safety and reporting accurate infection rates.³²⁸

While there may not be complete information on failures during that era, some issues and ways may have been less successful in handling the pandemic aftermath. Here are some probable failures and general sources for further information. If restrictions were relaxed too fast, the infection may have resurfaced and caused further sickness, postponing

³²⁶ J.S. Robertson & S.C. Inglis, 'Prospects for controlling future pandemics of influenza', *Virus Research* 162(1-2), 2011, pp. 39-46.

³²⁷ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

³²⁸ P. Shetty, 'Looking Back: The Asian Influenza Pandemic and Tourism Industry', *Worldwide Hospitality and Tourism Themes* 9(1), 2017, pp. 39-49.

recovery.³²⁹ Insufficient healthcare infrastructure investment may have also limited governments' abilities to treat viral victims. Moreover, insufficient communication and disinformation may have confused the public, hindering compliance with prescribed steps. Tourism may have suffered if economic recovery measures were not coordinated or focused, therefore prolonging the crisis. Uneven recovery results may have stemmed from failing to address social and economic healthcare inequities. Insufficient international coordination and information sharing may equally have hampered pandemic response.³³⁰

3.2.3 Hong Kong Influenza

The 1968 flu pandemic in Hong Kong affected the global travel and tourism industry due to the fact that travellers were afraid of contracting the virus, reducing tourism and its associated industries. The natural course of the 1968 Hong Kong influenza pandemic, medical advances and public health efforts all contributed to the world's return to normality.³³¹ These pandemic strategies differed from one country to the next, but they usually sought to confine the virus and reduce its public health effect. A summary of popular policies at the period is discussed below.³³²

Similar to other previously mentioned pandemics, governments, and health agencies restricted travel to stop the spread of infection. Border restrictions, quarantine and travel warnings hindered travel which resulted in flight cancellations and passenger declines which in turn hurt the airline sector as well as the tourism industry. In particular, this resulted in airlines' revenue and profits dropping significantly.³³³ To stop the virus from spreading, several nations closed borders and limited international travel. Protocols were created to isolate, quarantine, and treat sick people to offer medical care and avoid dissemination. Track-and-trace procedures became more advanced to help identify

³²⁹ J.M. Barry, '*The Great Influenza: The Story of the Deadliest Pandemic in History*', p. 16.

³³⁰ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

³³¹ N.M. Ferguson *et al.*, 'Strategies for mitigating an influenza pandemic', *Nature* 442(7101), 2006, pp. 448-452.

³³² D.M. Morens & J.K. Taubenberger, 'Pandemic influenza: certain uncertainties', *Reviews in medical virology* 21(5), 2011, pp.262-284.

³³³ K.R. Nigmatulina & R.C. Larson, 'Living with influenza: impacts of government imposed and voluntarily selected interventions', *European Journal of Operational Research* 195(2), 2009, pp.613-627.

possible cases. All these efforts helped contain the outbreak and restore normality. Travel habits altered due to the pandemic which meant that people favoured local and regional travel over international to avoid crowds and lengthy flights where they may contract the influenza.³³⁴ Long-term changes in the travel and tourist business included heightened health and safety regulations and crisis management measures due to the pandemic. Health screening and safety procedures were established at airports and other travel facilities to limit viral transmission. These included temperature checks, health assessments and hygiene improvements. Health monitoring and reporting mechanisms were enhanced to track the infection and detect new cases swiftly. Public health initiatives by governments and health organisations informed the public about the virus, its symptoms, and prevention.³³⁵

The pandemic also resulted in the closure and cancellation of several tourist sites, activities and gatherings. This directly affected attraction earnings and the tourism economy. Some schools, colleges, theatres and other public venues were also closed to limit huge crowds and transmission. A large section of the population grew immune to the virus via exposure or immunisation. This immunity made the population less susceptible to the virus and decreased cases. Vaccine development and dissemination were vital to viral control. Vaccination initiatives reduced disease and prevented new infections. A combination of natural immunity and vaccinations gave the population “herd immunity”³³⁶ which reduced the virus's target population, halting its spread. Healthcare facilities were also expanded to manage more patients. Studies by research institutes and health organisations examined the virus's behaviour, transmission and therapies. Flu-like disease management knowledge and therapies increased throughout this time, improving patient outcomes and lowering fatality rates.³³⁷

³³⁴ T. Ziegler *et al.*, ‘65 years of influenza surveillance by a World Health Organization-coordinated global network’, *Influenza and other respiratory viruses* 12(5), 2018, pp.558-565.

³³⁵ W. Zhang & J. Wood, ‘The Global Influenza Surveillance and Response System—65 years of building trust and sharing and a role model for global health security’, *Influenza and other respiratory viruses* 12(5), 2018, p. 566.

³³⁶ T.J. John & R. Samuel, ‘Herd immunity and herd effect: new insights and definitions’, *European journal of epidemiology* 16, 2000, pp. 601-606.

³³⁷ A.S. Monto, ‘Reflections on the Global Influenza Surveillance and Response System (GISRS) at 65 years: an expanding framework for influenza detection, prevention and control’, *Influenza and Other Respiratory Viruses* 12(1), 2018, p.10.

People also grew more hygiene-conscious and companies and organisations adopted a range of safety standards. To avoid viral transmission, cleanliness and sanitation guidelines were emphasised. Handwashing, concealing coughs and sneezes, and public area cleaning were included. As the pandemic subsided, governments and economies recovered with economic stabilisation being achieved via recovery and reconstruction. Society generally adapted to the “new normal”³³⁸ and created infection-prevention practises.³³⁹

Historical evaluations generally concentrate on successful initiatives, making it difficult to identify policies and practises that failed to restore normalcy following the 1968 Hong Kong influenza pandemic. However, there may be several general variables that slowed recovery. Insufficient or confusing information regarding the virus, preventative measures and immunisation could have hampered public participation in pandemic control. Governments might have communicated safe travel norms better, this would have assured travellers' safety and promoted responsible travel. Countries' failure to share knowledge, resources and best practises might also have hampered pandemic control.³⁴⁰

Late quarantine, isolation and other public health efforts may have sped up the virus's transmission, extending the epidemic. The government and businesses might have established and enforced health and safety laws that reassured travellers of their safety. This may include mask requirements, improved sanitary standards and social separation. Promoting local and regional tourism might have offset international travel loss. Government programmes and advertisements encouraging residents to explore their own regions may have boosted local economies.³⁴¹ Travellers would have been less confused and hesitant if governments had worked together to standardise international health and

³³⁸ F.H. Ramadhani, 'Literature Review: Healthy Home as The New Normal for Covid19 Prevention', *Jurnal Kesehatan Lingkungan* 12(1), 2020, p. 2020.

³³⁹ L. Zhong *et al.*, 'Medical, health and wellness tourism research—A review of the literature (1970–2020) and research agenda', *International Journal of Environmental Research and Public Health* 18(20), 2021, p. 10875.

³⁴⁰ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395(10240), 2020, pp.1824-1826.

³⁴¹ W. Zhang & J. Wood, 'The Global Influenza Surveillance and Response System—65 years of building trust and sharing and a role model for global health security', *Influenza and other respiratory viruses* 12(5), 2018, p. 566.

safety regulations. Governments may have streamlined airport health screening and travel processes to guarantee safe and efficient travel. Vaccine development and distribution issues, or lack of access, might have hampered attempts to build broad protection and control the pathogen. Certain groups' lack of healthcare, immunisation or awareness may have caused epidemics to spread and slowed recovery.³⁴²

Due to extended shutdowns or insufficient economic assistance, economies may have taken longer to recover, especially in pandemic-affected sectors. Airlines, hotels, restaurants and tour operators could have received financial aid from governments, which may have helped them survive the pandemic and reduced income. Flexible trip booking refund and cancellation procedures may have encouraged consumers to book despite uncertainty, knowing they could change their plans without financial repercussions.³⁴³

3.2.4 Ebola Virus Disease

Ebola has had a bigger, longer-lasting effect on travel and tourism than most of the previous diseases and health crises. Sierra Leone's initial tourist arrival decline was substantially greater and lasted longer than comparable epidemics and pandemics.³⁴⁴ Two years after the outbreak, tourist arrivals remained below peak. Sierra Leone arrivals dropped 93% from pre-epidemic levels compared to the SARS pandemic which reduced Hong Kong arrivals by 75%, while the Foot and Mouth pandemic reduced UK arrivals by 20%.³⁴⁵ The CDC advised tourists to avoid Guinea, Sierra Leone and Liberia because of Ebola.³⁴⁶

³⁴² J.T. Wu *et al.*, 'School closure and mitigation of pandemic (H1N1) 2009, Hong Kong', *Emerging infectious diseases* 16(3), 2010, p. 538; K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

³⁴³ E.B. Kilbourne, 'Influenza pandemics of the 20th century', *Emerging infectious diseases* 12(1), 2006, p. 9.

³⁴⁴ M.P. Grobusch *et al.*, 'Ebola 2018-Implications for travel health advice and relevance for travel medicine', *Travel medicine and infectious disease* 24, 2018, pp. 1-3.

³⁴⁵ World Travel & Tourism Council, 2018. *Impact of the Ebola Epidemic on Travel & Tourism*. World Travel & Tourism Council (WTTC).

³⁴⁶ World Travel & Tourism Council, 2018. *Impact of the Ebola Epidemic on Travel & Tourism*. World Travel & Tourism Council (WTTC).

At the time Sierra Leone, had barely recovered from a decade-long civil war, wherein it lost US\$1.4 billion of its GDP only one year after the Ebola outbreak began.³⁴⁷ The existing literature on Ebola in West Africa shows that there was chaos and a medical and social system that was unable to combat the sickness despite the increase in foreign aid and technology.³⁴⁸ The 2014/2015 travel season saw tourism revenues more than halve despite there being no recorded cases, causing what became known as the “Ebola-Induced Tourism Crisis”³⁴⁹ (EITC)(See Table 2). Graphic media pictures and a lack of accurate sources, as well as a lack of geographical understanding of Africa, ended up with a stereotyped perception of the whole region, even the entire continent, being associated with the disease.³⁵⁰ Destinations that may not have been directly impacted by the disease crisis, but due to location also had a negative impact on tourist arrivals. Unfortunately, governments and the WHO did not intervene in correcting these misconceptions.³⁵¹ In total, 99% of all Ebola cases have occurred in only three countries namely: Guinea, Liberia, and Sierra Leone, with a few registered cases being found outside these countries through travel association. The outbreak harmed businesses and deterred tourists for all of Africa.³⁵²

³⁴⁷ R. Maconachie & G. Hilson, ‘The war whose bullets you don't see: Diamond digging, resilience and Ebola in Sierra Leone’, *Journal of rural studies* 61, 2018, pp.110-122.

³⁴⁸ R. Maconachie & G. Hilson, ‘The war whose bullets you don't see: Diamond digging, resilience and Ebola in Sierra Leone’, *Journal of rural studies* 61, 2018, pp.110-122.

³⁴⁹ M. Novelli *et al.*, ‘No Ebola... still doomed–The Ebola-induced tourism crisis’, *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁵⁰ World Travel & Tourism Council, 2018. *Impact of the Ebola Epidemic on Travel & Tourism*. World Travel & Tourism Council (WTTC).

³⁵¹ M. Novelli *et al.*, ‘No Ebola... still doomed–The Ebola-induced tourism crisis’, *Annals of Tourism Research* 70, 2018, pp. 76-87; N. Cavlek, ‘Tour operators and destination safety’, *Annals of Tourism Research* 29(2), 2002, pp. 478–496; B. Ritchie *et al.*, ‘Understanding the effects of a tourism crisis: The impact of the BP oil spill on regional lodging demand’, *Journal of Travel Research* 53(1), 2013, pp. 12–25.

³⁵² World Travel & Tourism Council, 2018. *Impact of the Ebola Epidemic on Travel & Tourism*. World Travel & Tourism Council (WTTC).

Table 2: Key events that caused the ‘Ebola Induced Tourism Crisis’.³⁵³

Date	Events
December 2013	<ul style="list-style-type: none"> • First fatality in Guinea disease spreads to Liberia and Sierra Leone
March 2014	<ul style="list-style-type: none"> • Ebola outbreak in West Africa first reported in international press
April 2014	<ul style="list-style-type: none"> • Gambia bans entry of flights from Guinea, Liberia, Sierra Leone
Spring/Summer 2014	<ul style="list-style-type: none"> • Procurement of medical supplies and personal protective equipment positioned at strategic regions in the country • Local internal campaign sensitising Gambians to Ebola • Surveillance at border areas to screen nationals from affected countries entering The Gambia
Summer 2014	<ul style="list-style-type: none"> • Massive cancellations and fewer bookings for upcoming season • Tour operators decide to cancel several flights for the upcoming high season and code-share flights with each other to continue to service the destination
August 2014	<ul style="list-style-type: none"> • Stakeholders recognise that The Gambia is facing a crisis as a result of Ebola in the region • WHO declares the outbreak a public health emergency of international concern • Nigeria bans entry of Gambia Bird • Gambia Bird suspends services to Liberia and Sierra Leone • Upcoming season 2014/2015: Thomas Cook cancels all four flights to The Gambia from Scandinavia; UK/Dutch cancels 50% of flights and Poland cancels its one flight
Autumn 2014	<ul style="list-style-type: none"> • Communication strategy: GTB issues a letter to overseas tour operators and travel agencies • Most international air carriers stop servicing the three effected countries • Engagement, collaboration and support continues from The Gambia's key tourism partners for the upcoming season with all stakeholders creating incentives (e.g. hotels reduce rates by 20%, government ceases landing rights for three months, carriers subsidise air passengers)
November 2014	<ul style="list-style-type: none"> • Senior Gambian delegation attends World Travel Market to promote the Gambia as ‘open for business’ • Focus on meetings with airlines to identify new flight routes
December 2014	<ul style="list-style-type: none"> • Attend World Routes conferences; meet with Monarch, Jet2 and British Airways to discuss flights to The Gambia • Air Bird ceases operations
January 2015	<ul style="list-style-type: none"> • WHO reports fewer than 100 new confirmed cases in the three most effected countries (first time since week ending 29 June 2014)
March 2015	<ul style="list-style-type: none"> • Decrease of -50.45% for Jan-Mar 2015 compared to Jan-Mar 2014; with tourist arrivals of 24,814 in 2015 compared to 50,081 in 2014
May 2015	<ul style="list-style-type: none"> • Liberia officially declared Ebola-free, after 42 days without any cases; however new cases reported in late June and early July
Summer 2015	<ul style="list-style-type: none"> • Rate freeze by hotels for 2015/2016; other financial incentives no longer on offer • More flights added for upcoming high season commencing in October 2015 • Sales/marketing activities by the destination increases with press trips and planned e-marketing campaigns with key tour operators • IMF reports that in addition to Ebola, delayed summer rains in 2014 led to a 15% decline of crops serious implications for food security • 100% effective Ebola-jab in preliminary trials in West Africa • Sierra Leone's last Ebola patient ends treatment in mid-August; now it has to wait for 42 days to be declared Ebola-free. However, new case was reported on September 1 • Only Guinea continues to report a few weekly cases of Ebola

Residents first responded ambivalently to the Ebola warnings and instructions from governments.³⁵⁴ Even after the first cases were reported and the disease became “visible”,³⁵⁵ communities became complacent and even non-responsive due to a distrust in government which was shaped by decades of broken promises and corruption.³⁵⁶ Locals believed that Ebola was some form of government manipulation to reduce the population, while others did not believe that Ebola actually existed. Some people even

³⁵³ M. Novelli *et al.*, ‘No Ebola... still doomed—The Ebola-induced tourism crisis’, *Annals of Tourism Research* 70, 2018, pp. 76-87; N. Cavlek, ‘Tour operators and destination safety’, *Annals of Tourism Research* 29(2), 2002, pp. 478–496; B. Ritchie *et al.*, ‘Understanding the effects of a tourism crisis: The impact of the BP oil spill on regional lodging demand’, *Journal of Travel Research* 53(1), 2013, pp. 12–25.

³⁵⁴ Z.J. Yang, ‘Altruism during Ebola: Risk perception, issue salience, cultural cognition, and information processing’, *Risk Analysis* 36(6), 2016, pp. 1079-1089.

³⁵⁵ R. Maconachie & G. Hilson, ‘The war whose bullets you don't see: Diamond digging, resilience and Ebola in Sierra Leone’, *Journal of rural studies* 61, 2018, p.115.

³⁵⁶ M. Leach, ‘The Ebola crisis and post-2015 development’, *Journal of International Development* 27(6), 2015, pp. 816-834.

believed that Ebola was “man-made”,³⁵⁷ and people should not take heed of it. Those who ignored the government's advice to stay home and not travel far were responsible for accelerating Ebola's spread throughout West Africa.³⁵⁸

Low-quality, dysfunctional health systems in Africa's disease-endemic areas contributed to the dispersion of Ebola.³⁵⁹ Infected patients needed to be placed in isolation with boots, gowns, gloves, masks and goggles, and all equipment and surfaces required sterilisation. The appropriate size and use of Personal Protective Equipment (PPE) were one of the main NPI for medical professionals and wearing this PPE correctly required training. Despite sufficient isolation, residences, workplace circumstances, including lack of running water and air-conditioning, made direct care difficult.³⁶⁰

The government and international agencies were unable to control mobility of locals such as miners, but once people realised that human contact spread the disease, they seemed to accept that their movement needed to be minimised. All bodily contact was restricted, social gatherings were banned, and making love was minimized.³⁶¹ In an industry like diamond mining, where manpower and money are crucial, limiting mobility crippled the miners as working together was no longer possible due to risk which meant that safety of mining reduced. Motorcycle taxis were not permitted to ride after 6:00 PM which affected the miners' transport from the mines.³⁶²

Despite its location, quantity of patients and number of fatalities, the Ebola outbreak eventually changed the world's response - although rather too late. Epidemiological and

³⁵⁷ P.K. Awah *et al.*, 'Ebola Virus Diseases in Africa: a commentary on its history, local and global context', *The Pan African Medical Journal* 22(Suppl 1), 2015.

³⁵⁸ R. Maconachie & G. Hilson, 'The war whose bullets you don't see: Diamond digging, resilience and Ebola in Sierra Leone', *Journal of rural studies* 61, 2018, pp.110-122.

³⁵⁹ A. Debie *et al.*, 'Successes and challenges of health systems governance towards universal health coverage and global health security: a narrative review and synthesis of the literature', *Health research policy and systems* 20(1), 2022, p. 50.

³⁶⁰ O. Anis, 'Western African Ebola virus epidemic', *WikiJournal of Medicine* 6(1), 2019, pp.1-34.

³⁶¹ A. Nuriddin *et al.*, 'Trust, fear, stigma and disruptions: community perceptions and experiences during periods of low but ongoing transmission of Ebola virus disease in Sierra Leone, 2015', *BMJ global health* 3(2), 2018, p. e000410.

³⁶² R. Maconachie & G. Hilson, 'The war whose bullets you don't see: Diamond digging, resilience and Ebola in Sierra Leone', *Journal of rural studies* 61, 2018, pp.110-122.

clinical knowledge of the illness and vaccine development advanced greatly, even though there was no official licensed vaccine developed as yet.³⁶³ Ebola vaccines are currently still being developed and tested which is a proven efficient method in stopping the transmission of the virus among close contacts.³⁶⁴ Developing a nations' fragility makes tourist crisis recovery harder, due to a lack of human and financial resources for tourist marketing and development, weak governance and little tourism planning.³⁶⁵ These destinations may also depend on Non-Governmental Organisations (NGOs) and donors to aid in rebuilding their tourism businesses and prepare and respond to future tourism emergencies.³⁶⁶

In 2014 several tour operators raised the issue that there was a lack of contingency and emergency planning, risk analysis or crisis preparedness.³⁶⁷ Unfortunately both the public and private sector did not acknowledge the importance of this as 'no apparent proactive planning or strategy formulation' was in place.³⁶⁸ Throughout the outbreak there was no crisis team which showed how unprepared these countries were for disasters, even as the tourism industry experienced their bookings going down by 30% and there being £1 million in tourist cancellations.³⁶⁹ Overall, governments underestimated the gravity of the situation and potentially made it worse by their lack of acknowledgement and lack of urgency.³⁷⁰ An important measure for effective crisis management is being quickly alerted to the possibility of a crisis event occurring. There was some institutional awareness of a

³⁶³ A. Roca *et al.*, 'Ebola: a holistic approach is required to achieve effective management and control', *Journal of Allergy and Clinical Immunology* 135(4), 2015, pp. 856-867.

³⁶⁴ The Editors of Encyclopaedia Britannica, 2023., 'Ebola', <<https://www.britannica.com/science/Ebola>>, accessed: 27 June 2023.

³⁶⁵ Novelli *et al.*, 'Tourism in a post-conflict situation of fragility', *Annals of Tourism Research* 39(3), 2012, pp. 1446–1469.

³⁶⁶ M. Novelli *et al.*, 'No Ebola... still doomed—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87; M.P. Grobusch *et al.*, 'Ebola 2018-Implications for travel health advice and relevance for travel medicine' *Travel medicine and infectious disease* 24, 2018, pp. 1-3.

³⁶⁷ Y.O. Kirant & G. Cetin, 'A strategic approach to managing risk and crisis at tourist destinations', *Tourist destination management: Instruments, products, and case studies*, 2019, pp. 273-287.

³⁶⁸ B.W. Ritchie, 'Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry', *Tourism management* 25(6), 2004, pp.669-683; B. Faulkner, 'Towards a framework for tourism disaster management', *Tourism Management* 22, 2001, pp. 135-147.

³⁶⁹ M. Novelli *et al.*, 'No Ebola... still doomed—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁷⁰ M. Honigsbaum, 'Between securitisation and neglect: managing Ebola at the borders of global health', *Medical history* 61(2), 2017, pp. 270-294.

possible problem, the alert was raised by a few, but ignored by most governmental organisations.³⁷¹ This indicates the significance of having a strong, clear two-way communication plan in place, where all tourism parties and stakeholders can be made aware of a possible crisis and quickly act upon such information with responsibility.³⁷² There was an over reliance on international tour operators which made the issue of crisis identification worse, because those operators did not always share all the important information.³⁷³

The WHO was criticised for its sluggish and weak response to Ebola, particularly early in the pandemic. In October 2014, the Associated Press reported in an internal draught document that the WHO admitted most people involved in the Ebola response failed to notice factors that made the outbreak the largest on record and that they missed chances to stop the spread due to "in-competent staff, bureaucracy and a lack of reliable information".³⁷⁴ In April 2015, the WHO confessed major crisis management failures and promised reforms for future crises: "we did not work effectively in coordination with other partners, there were short-comings in risk communications and there was confusion of roles and responsibilities".³⁷⁵ Ebola was even mentioned during the June 2015 Group Seven (G7) and leaders promised to enforce WHO rules. Critics said the G7 leaders³⁷⁶ were not committed enough to fighting future pandemics.³⁷⁷

³⁷¹ A. Paraskevas & L. Altinay, 'Signal detection as the first line of defence in tourism crisis management', *Tourism Management* 34, 2013, pp. 158-171.

³⁷² B.W. Ritchie, 'Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry', *Tourism management* 25(6), 2004, pp.669-683; J.C. Henderson, 'Corporate social responsibility and tourism: Hotel companies in Phuket, Thailand, after the Indian Ocean tsunami', *International Journal of Hospitality Management* 26(1), 2007, pp. 228-239.

³⁷³ M. Novelli *et al.*, 'No Ebola... still doomed–The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁷⁴ M. Novelli *et al.*, 'No Ebola... still doomed–The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁷⁵ M. Novelli *et al.*, 'No Ebola... still doomed–The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁷⁶ These include France, United States, United Kingdom, Germany, Japan, Italy and Canada.

³⁷⁷ O. Anis, 'Western African Ebola virus epidemic', *WikiJournal of Medicine* 6(1), 2019, pp. 1-34.

3.3 Revitalizing Tourism: Navigating Pathways to Recovery

Pandemics of the twentieth century taught lessons that last. Global health, travel and tourism rely on strong regulations, active monitoring, and unshakable collaboration. International health rules and resilience represent a changing preparation framework that pledges to prevent, reduce, and recover from pandemics. Better pandemic response and recovery protocols were implemented in the twentieth century as the globe learned more. To rebuild traveller trust, the travel and tourism sector improved cleanliness, adopted digital technology for contactless services and promoted sustainable practises. Strategies for ‘Resilience and Recovery Pandemics” hampered the travel and tourist business, but recovery techniques repaired it. Governments and industry stakeholders strengthened health and safety standards post-pandemic to regain traveller trust. Tourism gradually recovered following the Spanish Flu due to efforts to repair infrastructure and public health systems. The twentieth century pandemics showed the necessity for worldwide collaboration and readiness to manage travel and tourism-related public health concerns. International legislation and cooperation, such as the WHO's, highlighted the need for a coordinated response to protect public health and help economic recovery.

In the midst of the upheaval, these measures were widely seen as crucial instruments for facilitating economic recovery on a global scale. In an earnest effort to repair the deteriorating state of the travel and tourism sector, governmental bodies and key players have intensified their endeavours to reinstate trust and assurance among travellers. A strategic plan materialised, distinguished by determined allocations of resources towards the development of healthcare infrastructure, advancements in technology, and cooperative efforts across national boundaries to standardise health standards.³⁷⁸

In order to manage the crisis in developing countries, tourist risk perceptions needed to be studied.³⁷⁹ Rapid Situation Analysis (RSA) techniques are needed to stabilise and

³⁷⁸ E. Avraham & E. Ketter, ‘Marketing destinations with prolonged negative images: Towards a theoretical model’, *Tourism Geographies* 15(1), 2013, pp.145-164.

³⁷⁹ I. Adam, ‘Backpackers’ risk perceptions and risk reduction strategies in Ghana’, *Tourism Management* 49, 2015, pp. 99–108.

(re)position the destinations examined in this study.³⁸⁰ Since the initial Marburgvirus and Ebola virus epidemics, several attempts have been made to produce a vaccine, but none are licenced. Several vaccine candidates have been tried for filovirus protection, with mixed results which adds to the need for easily developed vaccines.³⁸¹

3.3.1 Spanish Influenza

Restoring normality after the 1918-1919 Spanish influenza epidemic was difficult. Pandemic recovery tactics and policies differed from one country to another.³⁸² The Spanish influenza pandemic presented several problems and weaknesses for governments worldwide. Many governments wrestled with similar ideas and concerns. At the time, little was known about viruses, disease transmission and public health, making viral containment and management difficult.³⁸³ Governments have trouble communicating correct facts to the public, which might damage public faith in government direction. Many nations' healthcare systems were unprepared for the rapid patient rush and healthcare personnel struggled in overcrowded hospitals. The War effort left several nations short on resources during and after its conclusion. This slowed governments' epidemic response. In addition, economic and political pressures on governments to preserve normality might have collided with public health efforts.³⁸⁴ Some governments failed to coordinate their actions with neighbouring nations, causing discrepancies and spreading the infection. Some countries understated the pandemic's severity to avert panic, which may have delayed the implementation of effective solutions. Due to population resistance, quarantine and mask laws were difficult to enforce.³⁸⁵ Stigmatisation of victims and

³⁸⁰ M. Novelli *et al.*, 'No Ebola... still doomed—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁸¹ P. Ascenzi *et al.*, 'Ebola virus and Marburgvirus: insight the Filoviridae family', *Molecular aspects of medicine* 29(3), 2008, pp.151-185.

³⁸² L. Spinney, 'The Spanish flu: an interdisciplinary problem', *The Lancet* 392(10164), 2018, pp. 2552.

³⁸³ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in celluar and infection microbiology* 8, 2018, p. 343.

³⁸⁴ J.S. Oxford *et al.*, 'A hypothesis: the conjunction of soldiers, gas, pigs, ducks, geese and horses in northern France during the Great War provided the conditions for the emergence of the "Spanish" influenza pandemic of 1918-1919', *Vaccine* 23, 2005, pp. 940–945.

³⁸⁵ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in celluar and infection microbiology* 8, 2018, p. 343.

communities hampered case detection and control. Lack of international collaboration and information-sharing hampered the Spanish flu pandemic response.³⁸⁶

3.3.2 Asian Influenza

The 1957 Asian influenza pandemic also presented several problems to governments. Since vaccine development took time, governments struggled to give broad access to immunisations to stop the virus's spread early in the pandemic. Compared to today, doctors knew nothing about viruses and illness transmission. This made viral containment and management techniques difficult for governments.³⁸⁷ Many nations were still recuperating from World War 2 (WW2), and supply chain interruptions affected medical supplies, equipment and therapies. Misinformation and poor communication may have confused the public and prevented compliance with prescribed remedies. The unexpected rush of patients swamped hospitals and made treatment difficult. Economic and political pressures on governments to preserve normality might have collided with public health efforts. After vaccinations were produced, distribution and administration may have been difficult. Response techniques may also have been inconsistent across areas or nations, causing uncertainty and unequal public health effects. Public health measures like quarantine and isolation may have encountered community opposition. The pandemic may have caused unemployment, lifestyle changes and economic recovery issues.³⁸⁸

3.3.3 Hong Kong Influenza

Identifying government failures during the 1968 Hong Kong influenza pandemic might illuminate public health responses. In the past, influenza viruses and transmission were poorly understood. Lack of information may have hampered reaction tactics. Vaccine development and dissemination may have also proved difficult. Vaccine technology was less sophisticated, which may have slowed vaccine development and distribution. International communication and information exchange were slower and less efficient.

³⁸⁶ J.M. Barry, 'The Great Influenza: The Story of the Deadliest Pandemic in History', p. 100.

³⁸⁷ J.M. Barry, 'The Great Influenza: The Story of the Deadliest Pandemic in History', p. 99.

³⁸⁸ M. Honigsbaum, 'Revisiting the 1957 and 1968 influenza pandemics', *The Lancet* 395 (10240), 2020, pp. 1824-1826.

Delays in sharing viral information may have slowed response efforts. If vaccines were pushed to market without proper safety testing, safety concerns and public scepticism might have reduced vaccination adoption. Governments may have struggled to reconcile virus control with economic stability. Limited communication channels and public knowledge may have made it difficult to inform the people about the infection, preventative measures and vaccine. It may have been difficult to provide healthcare and immunisations to everybody, particularly disadvantaged communities. Some people may have rejected or disregarded public health initiatives, hampering containment. The pandemic may have stressed healthcare systems due to limited hospital beds and medical staff.³⁸⁹

3.3.4 Ebola Virus Disease

Understanding previous EVD epidemics and moving forward has shown that there were significant shortfalls. Inconsistent policy implementation explains insufficient local and international response to EVD in West Africa. Member states failed to undertake surveillance and data management seriously. Additionally, international travel prohibitions hurt economies and societies in afflicted nations. It stressed the need to identify strengths and fix gaps in international and national preparedness strategies. In 2015, WHO and associates created the 'Joint External Evaluation' (JEE) policy to assess capacity in four themes: prevent, detect, react, and 'Points of Entry' (PoE).³⁹⁰ It offers evidence-based global health response plans. Intervention efficacy must be monitored to understand public health consequences. Understanding variables that might distort goals/targets requires a detailed evaluation of intervention effect. To determine whether intervention strategies are meeting objectives, data on outcomes must be analysed and reported.³⁹¹ This shows intervention success, strategy problems and opportunities for improvement and strengthening. EVD outbreaks and the transmission in the DRC and adjoining areas threatened the globe. The afflicted African nations faced significant

³⁸⁹ M. Koščak & T. O'Rourke, 'Post-pandemic sustainable tourism management: the new reality of managing ethical and responsible tourism', p. 44.

³⁹⁰ A. Talisuna *et al.*, 'Joint external evaluation of the International Health Regulation (2005) capacities: current status and lessons learnt in the WHO African region', *BMJ global health* 4(6), 2019, p. e001312.

³⁹¹ A. Talisuna *et al.*, 'Joint external evaluation of the International Health Regulation (2005) capacities: current status and lessons learnt in the WHO African region', *BMJ Global Health* 4(6), 2019, p. 001312.

concerns linked to healthcare systems, surveillance, laboratory capacity, professional public health personnel, ethical and regulatory frameworks, political instability, etc. The impacted regions received global aid from wealthy nations, WHO, CDC, NGOs, and others to solve all these problems.³⁹²

Though outbreaks are managed, transmission to new locations continues. Lessons learned during epidemics imply all nations should have an emergency response strategy. This plan requires a skilled and trained health workforce to handle public health emergencies, rapid response teams of epidemiologists, clinicians and microbiologists at the provincial level, dedicated healthcare systems with isolation facilities, well-equipped Intensive Care Units (ICUs), a stockpile of PPE, and training for health care workers on PPE use.³⁹³ To coordinate efforts and collaborate with partners, a strong government structure is essential. All parties should collaborate for successful containment and community trust. Uncoordinated partner initiatives frequently benefit patients little, eroding community confidence. A single media and public spokesman is usually best. Communicating a common message without causing panic is crucial.³⁹⁴ Multiple communication points and media meddling in outbreak response team actions cause chaos. Strong political leadership, substantial finance and devoted workers at all levels are needed to limit the epidemic. This also applies to communication, where mobile and social media allow tweets, alerts and messages need to spread instantly. Since cancelled vacations to impacted places are generally the instant reaction to news of a crisis occurrence, it is crucial that these choices that affect economies and lives are done with fair cause and not out of fear or sensationalism.³⁹⁵

A high learning curve occurred and the crisis's many problems offered great chances for development. During the Ebola pandemic it became apparent that tourism is exceedingly

³⁹² S. Gupta *et al.*, 'Ebola virus outbreak preparedness plan for developing Nations: Lessons learnt from affected countries', *Journal of Infection and Public Health*, 14(3), 2021, pp. 293-305.

³⁹³ B.W. Ritchie, 'Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry', *Tourism management* 25(6), 2004, pp. 669-683.

³⁹⁴ S. Gupta *et al.*, 'Ebola virus outbreak preparedness plan for developing Nations: Lessons learnt from affected countries', *Journal of Infection and Public Health*, 14(3), 2021, pp. 293-305.

³⁹⁵ World Travel & Tourism Council, 2018. *Impact of the Ebola Epidemic on Travel & Tourism*. World Travel & Tourism Council (WTTC).

fragile. A crisis may arise from various reasons and therefore collaboration is more vital than ever. Risk assessments are valued despite tourism's limited resources. This requires educating stakeholders on risk/reputation management and considering the cultural context of the destination when looking at risk, decision-making and change. After this disaster, for which the destination was unprepared, an emergency fund was formed to prepare for future crises.³⁹⁶

3.4 Conclusion

Over 100 years have past since 1918, and so the question arises are we more prepared for the next influenza virus pandemic or are there still lessons to be learned?³⁹⁷ Understanding prior pandemics and their lessons has never been more important. Pandemics made the twentieth century a tapestry of irreversible social and industrial change. After these crises, the travel and tourism industry, which symbolises human connection, struggled.³⁹⁸ Policies created during these stormy periods demonstrated humanity's ability to adjust and recover as we design a future immunity to infectious illnesses. Global health, travel and tourism rely on strong regulations, active monitoring, and unshakable collaboration. International health rules and resilience represent a changing preparation framework that pledges to prevent, reduce and recover from pandemics.³⁹⁹

The twentieth century pandemics were devastating and disruptive, but also changed travel and tourism policy. Though difficult, travel restrictions and health precautions helped curb the spread of illness. Improved health procedures and infrastructure helped the sector recover. These pandemics showed the need of global collaboration, effective legislation and resilient solutions to limit the effects of future health crises on travel and

³⁹⁶ M. Novelli *et al.*, 'No Ebola... still doomed—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁹⁷ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

³⁹⁸ M. Novelli *et al.*, 'No Ebola... still doomed—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

³⁹⁹ G. Ozbay *et al.*, 'A comparative evaluation between the impact of previous outbreaks and COVID-19 on the tourism industry', *International Hospitality Review* 36(1), 2022, pp. 65-82.

tourism.⁴⁰⁰ If intervention strategies are upheld for a sufficient amount of time, then there is a greater chance of them being successful. If NPI therapies were sustained, mortality decreased considerably. However, interventions seldom lasted more than six weeks and the virus propagated whenever limits were lifted, raising public doubts about the NPI efficacy.⁴⁰¹

This section discussed how there have been many noteworthy health related crises that have had an effect on the global tourism industry, some of which feel like a distant memory. The degree of effect differs from one scenario to the next, each having their own tally of deaths, loss of revenue and destination destruction.⁴⁰² But knowledge is still lacking in terms of in-depth research on how the tourism sector can deal with these crises.

⁴⁰⁰ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

⁴⁰¹ H. Markel *et al.*, 'Nonpharmaceutical interventions implemented by US cities during the 1918-1919 influenza pandemic', *JAMA* 298(6), 2007, pp. 644-654; R.J. Hatchett *et al.*, 'Public health interventions and epidemic intensity during the 1918 influenza pandemic', *Proceedings of the National Academy of Sciences* 104(18), 2007, pp. 7582-7587.

⁴⁰² World Bank, 2023., 'Air transport, passengers carried', <<https://data.worldbank.org/indicator/is.air.psgv>>, accessed 27 June 2023; World Bank, 2023b., 'International tourism, number of arrivals', <<https://data.worldbank.org/indicator/ST.INT.ARVL>>, accessed 27 June 2023.

Chapter 4: Twenty-first Century Pandemics

The twenty-first century has been characterised by a sequence of extraordinary pandemics that have fundamentally transformed the global landscape, resulting in a lasting influence on society, the economy and other sectors.⁴⁰³ This chapter explores the pandemics that have occurred in the twenty-first century, examining their extensive impacts on a global scale, particularly within the travel and tourism sector.⁴⁰⁴ Additionally, this chapter examines the policies implemented throughout these periods of crisis and analyses how these measures were used to promote the process of tourism economic recovery.⁴⁰⁵

4.1 Pandemics of the twenty-first Century: A New Era of Health Crisis

The advent of the twenty-first century saw the onset of a series of consequential pandemics that fundamentally altered the landscape of global health readiness.⁴⁰⁶ The appearance of SARS in 2002 marked the first pandemic of the twenty-first century; swine Influenza appeared in 2009; MERS followed three years later in 2012; and the most recent pandemic, COVID-19, brought attention to the constant risk posed by newly identified infectious pathogens.⁴⁰⁷ The occurrence of these pandemics has highlighted the interdependence of the contemporary global society and the need for prompt and synchronised actions.⁴⁰⁸ Table 3 lists these pandemics and the related figures.

⁴⁰³ World Health Organisation Team, 24 July 2015., 'Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003', <<https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>>, accessed: 7 August 2023.

⁴⁰⁴ United Nations World Tourism Organisation, 28 May 2020., 'Global Guidelines to Restart Tourism', <<https://www.unwto.org/news/unwto-launches-global-guidelines-to-restart-tourism>>, accessed: 7 August 2023.

⁴⁰⁵ International Air Transport Association, 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

⁴⁰⁶ World Health Organization, 18 October 2021., 'Coronavirus disease (COVID-19) pandemic', <<https://www.who.int/europe/emergencies/situations/covid-19>>, accessed: 7 August 2023.

⁴⁰⁷ C.X. Liu, 'Pay attention to situation of SARS-CoV-2 and TCM advantages in treatment of novel coronavirus infection', *Chinese Herbal Medicines* 12(2), 2020, pp. 97-103.

⁴⁰⁸ Centers for Disease Control and Prevention, 2 August 2019., 'Patients in the U.S. Who Should Be Evaluated for MERS-CoV Infection', <<https://www.cdc.gov/coronavirus/mers/interim-guidance.html>>, accessed: 7 August 2023.

Table 3: ⁴⁰⁹ List of some of the pandemics that occurred during the twenty-first century. ⁴¹⁰

Pandemic	Start	End	Area of emergence	Pathogen	Death toll	Number of infections	World Population (in Billion)
SARS	2002	2003	China	Coronavirus	774 - 790	8 455	6.31
Swine Influenza	2009	2010	Mexico	Influenza A (H1N1)	148 000 – 249 000	630 000	6.89
MERS	2012	Now	Saudi Arabia	Coronavirus	850 - 858	2 494	7.41
COVID-19	2019	Now	China	SARS-Cov-2	6.9 million	696 876 332	7.74

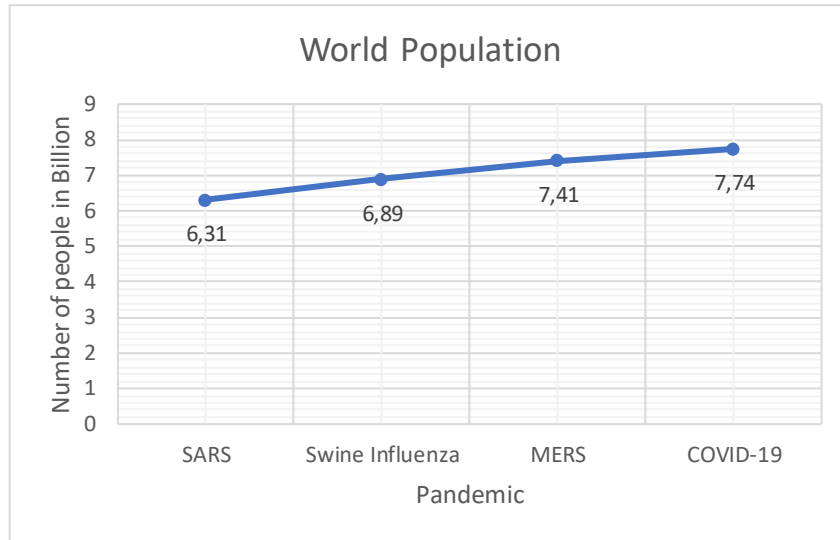
During the twenty-first century there has been a significant increase in population compared to the twentieth century (see Graph 1 and Graph 7). The increase in population size naturally resulted in a higher death count of more recent pandemics if you compare the first pandemic of the century SARS, to the most recent pandemic COVID-19. However, the CFR was lower for COVID-19 than it was for SARS (See Graph 8), meaning the percentage of people dying from the disease was lower. ⁴¹¹

⁴⁰⁹ These values are estimated from various sources.

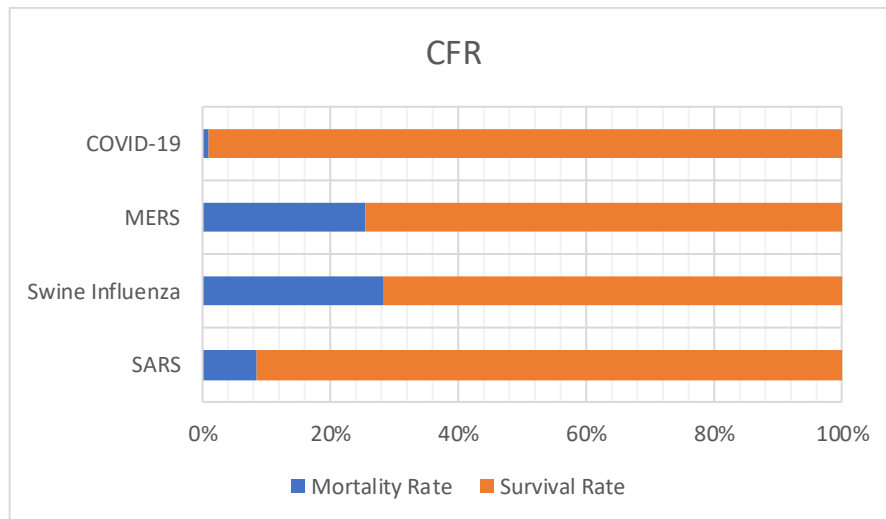
⁴¹⁰ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023; World Bank, 2023., 'Population, total', <<https://data.worldbank.org/indicator/SP.POP.TOTL>>, accessed: 27 June 2023; I. Mena *et al.*, 'Origins of the 2009 H1N1 influenza pandemic in swine in Mexico', *Elife* 5, 2016, p. e16777; R.H. Xu *et al.*, 'Epidemiologic clues to SARS origin in China', *Emerging infectious diseases* 10(6), 2004, p. 1030; H.J. Han *et al.*, 'Evidence for zoonotic origins of Middle East respiratory syndrome coronavirus', *The Journal of general virology* 97(2), 2016, p. 274.

⁴¹¹ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, p. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

Graph 7: World population during the pandemics of the twenty-first century.⁴¹²



Graph 8: Ratio of infection vs death rate as a result of each twenty-first pandemics.⁴¹³



⁴¹² World Bank, 2023., 'Population, total', <<https://data.worldbank.org/indicator/SP.POP.TOTL>>, accessed: 27 June 2023.

⁴¹³ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

4.1.1 Severe Acute Respiratory Syndrome (SARS) 2002 – 2003

Multiple nations were impacted by the SARS pandemic of 2002. Travel spread it from China to many other countries (See Figure 4). The first SARS cases were reported in November 2002 in Guangdong Province, China. The infection soon spread throughout the country, causing fatalities.⁴¹⁴ Hong Kong was one of the worst hit areas outside of China. Many cases and fatalities occurred in the city due to high transmission rates in the community and hospital sectors.⁴¹⁵ The importation of Chinese SARS patients caused a major pandemic in Taiwan. The infection spread in hospitals, posing public health risks.⁴¹⁶ A Toronto-centred pandemic occurred in Canada. Singapore experienced several SARS patients, first imported from China. A pandemic triggered severe public health precautions and hospital quarantines.⁴¹⁷ Vietnam had a limited pandemic with a few healthcare connections. The pathogen was contained by prompt public health efforts.⁴¹⁸ This outbreak resulted in better monitoring, improved international disease control collaboration and stronger preparation and response mechanisms for future outbreaks.⁴¹⁹ As a result a lower mortality rate was experienced (See Graph 9).

⁴¹⁴ World Health Organisation, 2023., 'Severe Acute Respiratory Syndrome (SARS)', <https://www.who.int/health-topics/severe-acute-respiratory-syndrome#tab=tab_1>, accessed: 7 August 2023.

⁴¹⁵ N. Lee *et al.*, 'A major outbreak of severe acute respiratory syndrome in Hong Kong', *New England Journal of Medicine* 348(20), 2003, pp. 1986-1994; S.M. Poutanen *et al.*, 'Identification of severe acute respiratory syndrome in Canada', *New England Journal of Medicine* 348(20), 2003, pp. 1995-2005.

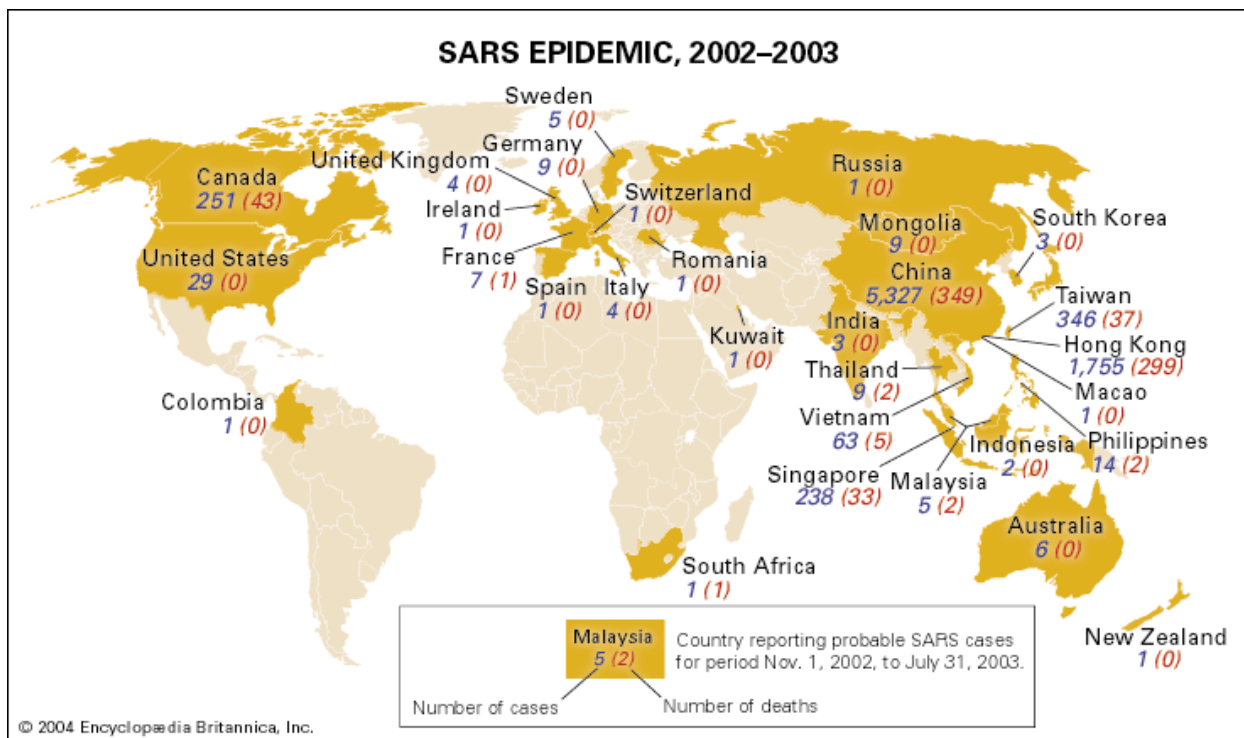
⁴¹⁶ L.Y. Chang *et al.*, 'Childhood severe acute respiratory syndrome in Taiwan and how to differentiate it from childhood influenza infection', *Archives of pediatrics & adolescent medicine* 158(11), 2004, pp. 1037-1042.

⁴¹⁷ H.N. Leong *et al.*, 'SARS in Singapore-predictors of disease severity', *Annals-Academy of Medicine Singapore* 35(5), 2006, p. 326.

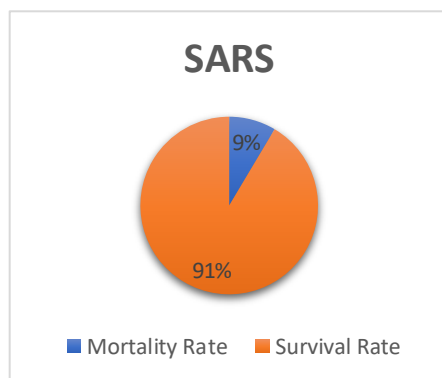
⁴¹⁸ World Health Organization, 15 March 2003., 'World Health Organization issues emergency travel advisory', <<https://www.who.int/news/item/15-03-2003-world-health-organization-issues-emergency-travel-advisory>>, accessed: 7 August 2023.

⁴¹⁹ W. Ahmed *et al.*, 'Surveillance of SARS-CoV-2 RNA in wastewater: Methods optimization and quality control are crucial for generating reliable public health information', *Current opinion in environmental science & health* 17, 2020, pp. 82-93.

Figure 4: Confirmed cases of the SARS pandemic.⁴²⁰



Graph 9: SARS mortality rate compared to survival rate.⁴²¹



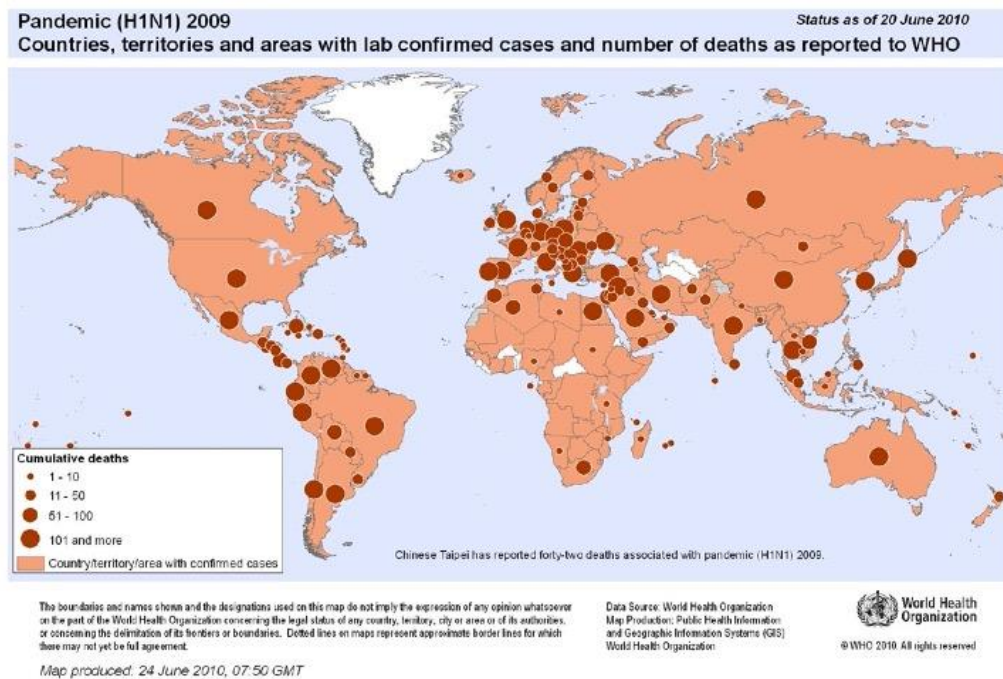
⁴²⁰ The Editors of Encyclopedia Britannica, 2023., 'SARS epidemic, 2002-03', <<https://www.britannica.com/science/SARS#media/1/902541/71573>>, accessed: 27 September 2023.

⁴²¹ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023; R.H. Xu *et al.*, 'Epidemiologic clues to SARS origin in China', *Emerging infectious diseases* 10(6), 2004, p. 1030.

4.1.2 Swine Influenza 2009 - 2010

Many countries were impacted by the 2009 – 2010 pandemic. The pandemic began in Mexico, where many cases and deaths occurred.⁴²² According to the authors J. Maurer and K.M. Harris,⁴²³ the first instances were linked to a swine flu virus having human, avian and swine flu genes. The swine flu spread fast throughout the USA. Monitoring and reacting to the pandemic was the CDC's responsibility. The swine flu pandemic spread throughout North America, Canada, Europe, Asia and beyond. It also hit the UK, Australia, Japan, India, Brazil, Argentina, and others (See Figure 5). This pandemic resulted in a relatively high mortality rate compared to other twenty-first century pandemics (See Graph 10)

Figure 5: Countries with lab confirmed cases and number of deaths from the Swine influenza.⁴²⁴

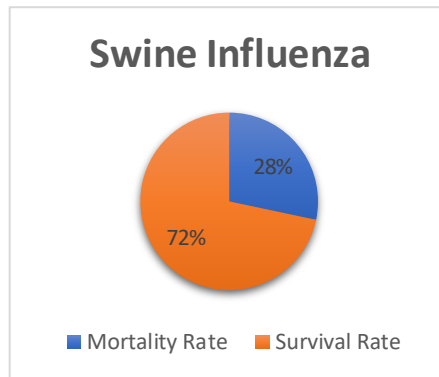


⁴²² J. Maurer & K.M. Harris, 'Learning to trust flu shots: Quasi-experimental evidence from the 2009 swine flu pandemic' *Health economics* 25(9), 2016, pp. 1148-1162.

⁴²³ J. Maurer & K.M. Harris, 'Learning to trust flu shots: Quasi-experimental evidence from the 2009 swine flu pandemic' *Health economics* 25(9), 2016, pp. 1148-1162.

⁴²⁴ World Health Organisation, 24 June 2010., 'World: Pandemic (H1N1) 2009 - Countries, Territories and Areas With Lab Confirmed Cases and Number of Deaths as Reported to WHO (as of 20 Jun 2010)', <<https://reliefweb.int/map/world/world-pandemic-h1n1-2009-countries-territories-and-areas-lab-confirmed-cases-and-number-18>>, accessed: 7 August 2023.

Graph 10: Swine influenza mortality rate compared to survival rate.⁴²⁵



4.1.3 Middle East Respiratory Syndrome (MERS) 2012 - Present

The MERS pandemic had the most serious impact on Middle Eastern nations. After being discovered in Saudi Arabia in 2012, the virus spread throughout the region affecting countries such as Bahrain, Jordan, Oman, Kuwait, Qatar and Yemen.⁴²⁶ The virus was believed to have originated among camels and then it was transmitted to humans and thus it was commonly attributed to Arabian Peninsula travellers. One person who caught MERS in the Middle East spread it to South Korea in 2015.⁴²⁷ MERS was also detected in areas outside of the Middle East such as the UK, France, Italy and USA where cases were reported about travellers that had visited the Middle East and then acquired symptoms (See Figure 6).⁴²⁸ This pandemic killed numerous people as it had a high CFR and prompted various travel warnings that will be discussed below (See Graph 11).

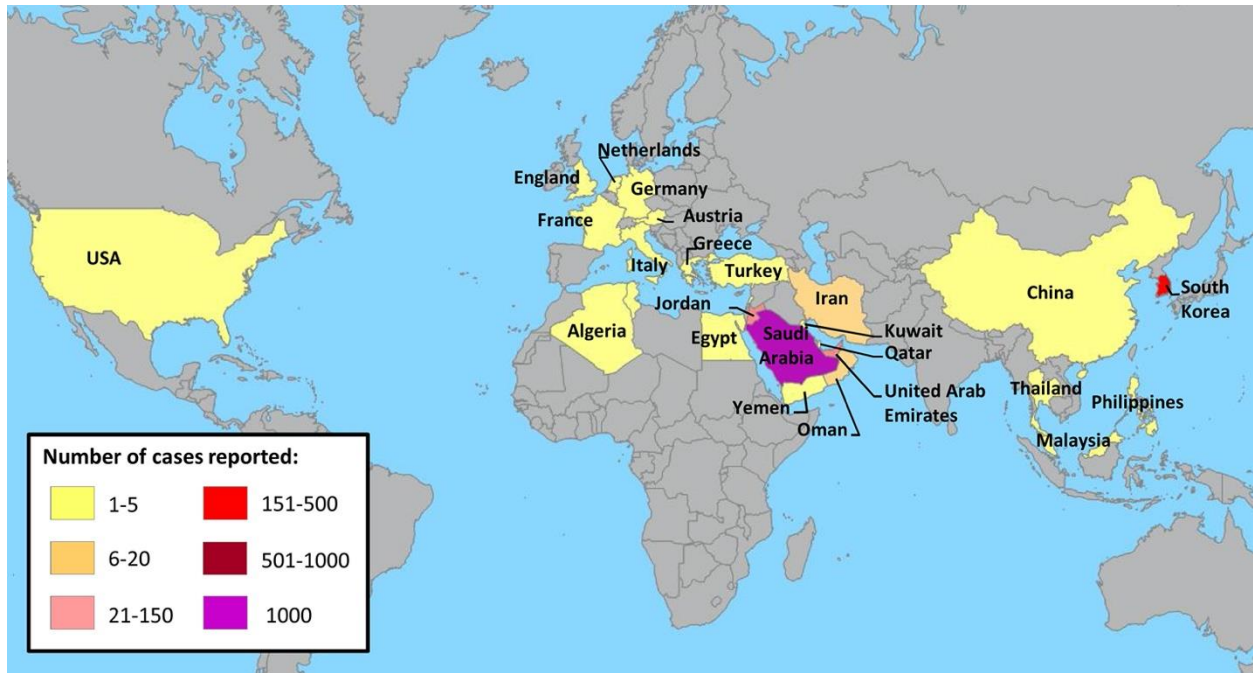
⁴²⁵ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023; I. Mena *et al.*, 'Origins of the 2009 H1N1 influenza pandemic in swine in Mexico', *Elife* 5, 2016, pp. e16777.

⁴²⁶ M. Nassar *et al.*, 'Middle East Respiratory Syndrome Coronavirus (MERS-CoV) infection: epidemiology, pathogenesis and clinical characteristics', *European Review for Medical and Pharmacological Sciences* 22(15), 2018, pp. 4956-4961.

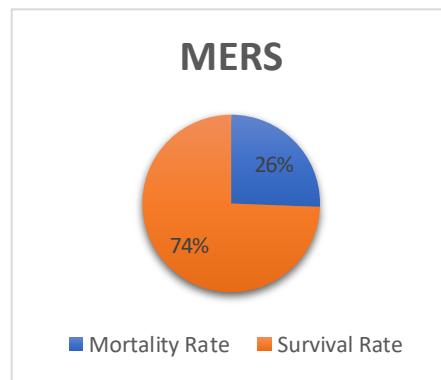
⁴²⁷ D.S. Hui *et al.*, 'Spread of MERS to South Korea and China', *The lancet Respiratory medicine* 3(7), 2015, pp. 509-510.

⁴²⁸ I.M. Mackay & K.E. Arden, 'MERS coronavirus: diagnostics, epidemiology and transmission', *Virology journal* 12(1), 2015, pp. 1-21.

Figure 6: Distribution of confirmed cases of MERS.⁴²⁹



Graph 11: MERS mortality rate compared to survival rate.⁴³⁰



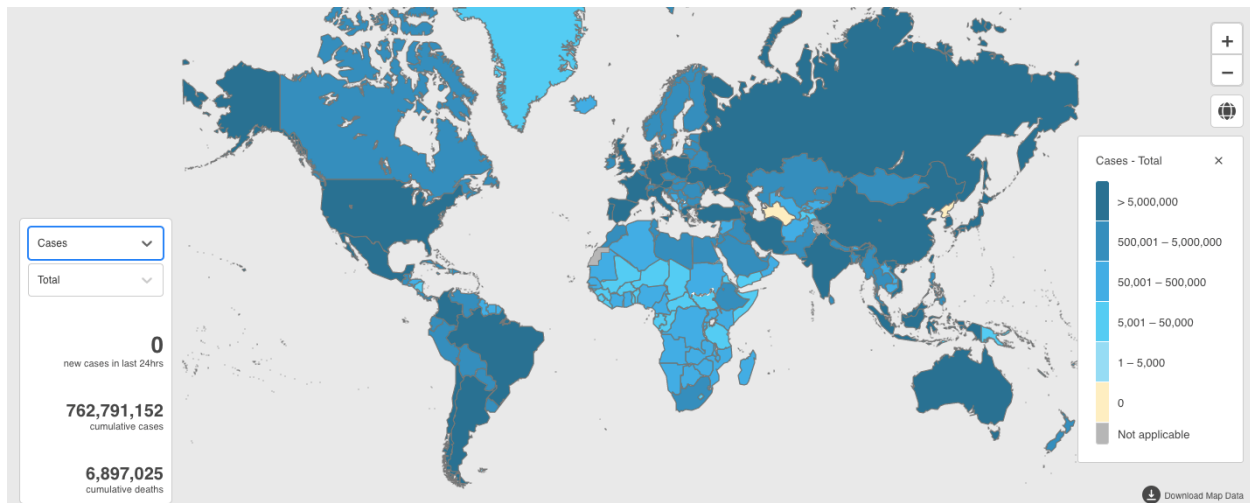
⁴²⁹ A. Bleibtreu *et al.*, 'Focus on Middle East respiratory syndrome coronavirus (MERS-CoV)', *Medecine et maladies infectieuses* 50(3), 2020, pp. 243-251.

⁴³⁰ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023; H.J. Han *et al.*, 'Evidence for zoonotic origins of Middle East respiratory syndrome coronavirus', *The Journal of general virology* 97(2), 2016, p. 274.

4.1.4 Corona Virus Disease (COVID-19) 2019 - Present

COVID-19 influenced almost every nation across the world to some extent which resulted in widespread global panic. Thus far this has been the widest spread and most devastating pandemic of the twenty-first century (See Figure 7). China originally experienced extensive transmission after the Wuhan incident which was generally believed to be the epicentre of the virus.⁴³¹ As a result of increased transmissions, infection rates started to surge, further burdening the world's healthcare systems. To manage these effects, various precautionary measures were instated. Authorities imposed COVID management strategies such as lockdowns, travel bans, curfews, public health campaigns and vaccination drives that were used to limit the spread and infection rate of the virus and ensure that the mortality rate remained low (See Graph 12).⁴³² Comprehensive testing, contact tracking and quarantine helped countries to contain the spread. However, as a result tourism was severely affected by government lockdowns and travel restrictions.⁴³³

Figure 7: Global confirmed cases of COVID-19 pandemic.⁴³⁴



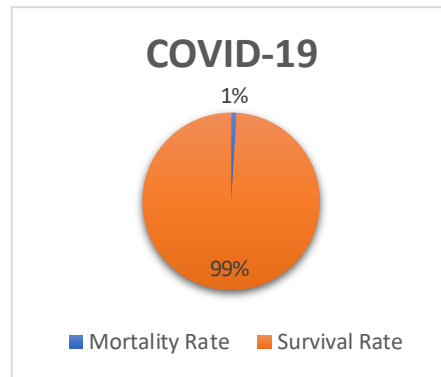
⁴³¹ A. Kumar *et al.*, 'Wuhan to world: the COVID-19 pandemic', *Frontiers in cellular and infection microbiology* 11, 2021, p. 596201.

⁴³² S. Devi, 'Travel restrictions hampering COVID-19 response', *The Lancet* 395(10233), 2020, pp. 1331-1332.

⁴³³ N.A. Bakar & S. Rosbi, 'Effect of Coronavirus disease (COVID-19) to tourism industry', *International Journal of Advanced Engineering Research and Science* 7(4), 2020, pp. 189-193.

⁴³⁴ World Health Organisation (WHO), 18 October 2023., 'WHO Coronavirus (COVID-19) Dashboard', <<https://covid19.who.int/>>, accessed: 18 October 2023.

Graph 12: COVID-19 mortality rate compared to survival rate.⁴³⁵



4.2 Global Travel and Tourism in the Face of Pandemics and Policies in Action

The travel and tourism industry, which plays a pivotal role in fostering economic development and facilitating cultural interactions, saw significant upheavals due to the pandemics witnessed in the twenty-first century.⁴³⁶ In order to mitigate the transmission of the infection, extensive measures such as the implementation of travel restrictions, border closures and lockdowns were widely used.⁴³⁷ The tourism industry saw a significant decline in the number of visitors, resulting in challenges for the hospitality sector and substantial financial setbacks.⁴³⁸ This situation highlighted the underlying vulnerabilities present in a globally integrated travel ecosystem.⁴³⁹

⁴³⁵ S. Sampath *et al.*, 'Pandemics throughout the history', *Cureus* 13(9), 2021, pp. e18136; D. Huremović, 'Brief history of pandemics (pandemics throughout history)', *Psychiatry of pandemics: a mental health response to infection outbreak*, 2019, pp. 7-35; J. Piret & G. Boivin, 'Pandemics throughout history', *Frontiers in microbiology* 11, 2021, p. 631736; N. LePan, 2020., 'Visualizing the History of Pandemics', <<https://www.visualcapitalist.com/history-of-pandemics-deadliest/>>, accessed: 14 July 2023.

⁴³⁶ World Health Organisation Team, 24 July 2015., 'Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003', <<https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>>, accessed: 7 August 2023.

⁴³⁷ Centers for Disease Control and Prevention, 2 August 2019., 'Patients in the U.S. Who Should Be Evaluated for MERS-CoV Infection', <<https://www.cdc.gov/coronavirus/mers/interim-guidance.html>>, accessed: 7 August 2023.

⁴³⁸ World Health Organization, 18 October 2021., 'Coronavirus disease (COVID-19) pandemic', <<https://www.who.int/europe/emergencies/situations/covid-19>>, accessed: 7 August 2023.

⁴³⁹ UNWTO, 28 May 2020., 'Global Guidelines to Restart Tourism', <<https://www.unwto.org/news/unwto-launches-global-guidelines-to-restart-tourism>>, accessed: 7 August 2023; International Air Transport Association (IATA), 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

In light of the dynamic nature of pandemics, governmental bodies and international entities have established a variety of policies with the objective of reducing the risks associated with disease transmission.⁴⁴⁰ The implementation of improved health checks, quarantine protocols and the establishment of international health rules played crucial roles in protecting public health.⁴⁴¹ The COVID-19 pandemic has been characterised by the implementation of extensive lockdown measures, requirements for social distancing and the rapid adoption of digital health certificates to enable secure travel arrangements.⁴⁴² It is essential to acknowledge that the efficacy of these tactics may differ depending on the unique conditions of each nation and the trajectory of the pandemic.⁴⁴³

4.2.1 SARS

The global travel and tourism sector saw notable repercussions because of the SARS pandemic in 2002. The issuance of a WHO travel advisory on 15 March 2003, resulted in a series of travel advisories against Hong Kong, China, Toronto and Taiwan effectively closed many borders. This was the first time in the WHO 45-year history that it had issued advisories for specific geographical areas because of an outbreak of an infectious disease. International organisations, including the WHO, played a pivotal role in promoting cooperation among nations via the dissemination of information and recommendations for effectively managing and containing the pandemic.⁴⁴⁴ Governments, such as the Thai government instructed tourists from affected areas to wear facemasks for their visit. It also warned that if arriving passenger showed SARS

⁴⁴⁰ World Health Organisation Team, 24 July 2015., 'Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003', <<https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>>, accessed: 7 August 2023.

⁴⁴¹ International Air Transport Association, 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

⁴⁴² United Nations World Tourism Organisation, 28 May 2020., 'Global Guidelines to Restart Tourism', <<https://www.unwto.org/news/unwto-launches-global-guidelines-to-restart-tourism>>, accessed: 7 August 2023.

⁴⁴³ World Health Organization, 18 October 2021., 'Coronavirus disease (COVID-19) pandemic', <<https://www.who.int/europe/emergencies/situations/covid-19>>, accessed: 7 August 2023; Centers for Disease Control and Prevention (CDC), 2 August 2019., 'Patients in the U.S. Who Should Be Evaluated for MERS-CoV Infection', <<https://www.cdc.gov/coronavirus/mers/interim-guidance.html>>, accessed: 7 August 2023.

⁴⁴⁴ K. Stadler *et al.*, 'SARS—beginning to understand a new virus', *Nature Reviews Microbiology* 1(3), 2003, pp. 209-218.

symptoms, all passengers would be quarantined for up to two weeks. Several cities in China issued similar travel bans that were subsequently lifted. Various cities in Singapore imposed an automatic 14-day quarantine period on returning residents who visited infected countries.⁴⁴⁵ These restrictions therefore deterred travel to places that were impacted by the disease.⁴⁴⁶

Quarantine protocols were implemented for persons who had encountered SARS or shown symptoms.⁴⁴⁷ To avoid future transmission, healthcare institutions implemented the isolation of infected persons and suspected cases.⁴⁴⁸ The expeditious identification, isolation and quarantine of persons who were afflicted or thought to be infected played a crucial role in mitigating the spread of the virus.⁴⁴⁹

Consequently, there was a notable decrease in both foreign and domestic tourism.⁴⁵⁰ The tourist sector had significant financial setbacks because of widespread cancellations and a decrease in travel demand. It is estimated that the global economic loss from SARS reached a value of USD 40 billion.⁴⁵¹ The income of airlines, hotels, restaurants and other companies within the tourist sector saw a significant decrease.⁴⁵² The airline industry had financial challenges due to a significant decline in passenger volumes, resulting in the implementation of lower flight frequencies, workforce reductions and insolvency for some

⁴⁴⁵ B. McKercher & K. Chon, 'The Over-Reaction to SARS and the Collapse of Asian Tourism', *Annals of tourism research* 31(3), 2004, pp. 716-719.

⁴⁴⁶ S. Devi, 'Travel restrictions hampering COVID-19 response', *The Lancet* 395(10233), 2020, pp. 1331-1332.

⁴⁴⁷ World Health Organisation, 2023., 'Severe Acute Respiratory Syndrome (SARS)', <https://www.who.int/health-topics/severe-acute-respiratory-syndrome#tab=tab_1>, accessed: 7 August 2023.

⁴⁴⁸ Centers for Disease Control, 9 May 2003., 'Severe Acute Respiratory Syndrome -Singapore, 2003', <<https://www.cdc.gov/mmwr/preview/mmwrhtml/mm5218a1.htm>>, accessed: 7 August 2023.

⁴⁴⁹ H.N. Leong *et al.*, 'SARS in Singapore-predictors of disease severity', *Annals-Academy of Medicine Singapore* 35(5), 2006, p. 326.

⁴⁵⁰ World Health Organisation, 2023., 'Severe Acute Respiratory Syndrome (SARS)', <https://www.who.int/health-topics/severe-acute-respiratory-syndrome#tab=tab_1>, accessed: 7 August 2023.

⁴⁵¹ K. Oberholtzer *et al.*, 'Workshop Summary', *Learning from SARS: Preparing for the Next Disease Outbreak* 11, 2004.

⁴⁵² W. Hai *et al.*, 'The short-term impact of SARS on the Chinese economy', *Asian Economic Papers* 3(1), 2004, pp. 57-61.

airlines.⁴⁵³ The cruise sector saw a decline in demand and an increase in cancellations as a result of concerns around the potential spread of infectious diseases onboard, as well as the fear of being subjected to marine quarantine.⁴⁵⁴

The destinations that were impacted by the SARS outbreak saw adverse publicity and a compromised reputation, necessitating a significant duration for recuperation notwithstanding the successful containment of the pandemic.⁴⁵⁵ The apprehension around the spread of diseases prompted a change in travel behaviour, whereby individuals were more cautious in their selection of destinations that had previously seen outbreaks of infectious diseases. These included East Asia where tourist arrivals fell by 41% between 2002 and 2003. China, Hong Kong, Vietnam, and Singapore suffered the greatest losses in tourism. The region saw a drop of 12 million arrivals during the outbreak.⁴⁵⁶ The WHO regularly issued recommendations against non-essential travel to places seriously affected by SARS and the lists of countries with SARS cases was regularly updated on their website. During the peak of the SARS epidemic in May 2003, flights at the Hong Kong International Airport dropped by 49%. Similarly, Singapore Airlines and airlines in the mainland of China cancelled between 50% to 78% of their flights.⁴⁵⁷

To facilitate the transition away from person-to-person contact, the trajectory of online booking and reservation systems had to be redesigned. By simplifying user interface and ease of access online platforms allowed for mass use to mitigate in-person encounters during the pandemic.⁴⁵⁸ Numerous enterprises were compelled to adopt cost reduction

⁴⁵³ International Air Transport Association, 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

⁴⁵⁴ G. Hiscock, 17 April 2003., 'SARS sets cruise ships adrift', <<https://edition.cnn.com/2003/BUSINESS/04/16/australia.starcrises.biz/index.html>>, accessed: 7 August 2023.

⁴⁵⁵ P. Leung & T. Lam, 'Crisis management during the SARS threat: A case study of the metropole hotel in Hong Kong', *Journal of Human Resources in Hospitality & Tourism* 3(1), 2003, pp. 47-57.

⁴⁵⁶ A. Wilder-Smith, 'The severe acute respiratory syndrome: Impact on travel and tourism', *Travel Medicine and Infectious Disease* 4(2), 2006, pp. 53-60.

⁴⁵⁷ W.K. Lam *et al.*, 'Overview on SARS in Asia and the world', *Respirology* 8, 2003, pp. S2-S5.

⁴⁵⁸ A. Wilder-Smith, 'The severe acute respiratory syndrome: impact on travel and tourism', *Travel medicine and infectious disease* 4(2), 2006, pp. 53-60.

strategies and initiate workforce reductions in response to the decline in demand.⁴⁵⁹ Destinations that were directly affected by the SARS saw adverse press coverage and suffered reputational harm to their tourist industry. The process of recovery and rebuilding confidence among travellers for these places was a time-consuming endeavour.⁴⁶⁰ The numbers of tourist arrivals in Taiwan bounced back to the pre-SARS level almost immediately after the removal of the SARS alert in Taiwan. On the other hand, in Japan, it took a whole year to regain the amount of tourist arrivals up to the pre-SARS level. Hong Kong and the USA also suffered a similar fate.⁴⁶¹ The apprehension around the potential spread of diseases during the SARS pandemic resulted in enduring alterations to travel behaviours.⁴⁶² According to S. Elbe, travellers have shown an increased level of judgment in their selection of countries that have a documented history of infectious illness outbreaks.⁴⁶³

Various countries deployed advanced surveillance systems in order to detect and monitor instances. Healthcare professionals and establishments were obligated to promptly notify public health authorities with suspicious instances.⁴⁶⁴ Public health education campaigns were initiated by governments and international organisations with the aim of educating the general public about the symptoms of SARS, preventive measures and the need of getting medical attention when experiencing symptoms.⁴⁶⁵ Hospitals and healthcare institutions established rigorous infection control methods, which included the

⁴⁵⁹ J.R. Smith, 1 May 2020., 'What is in store for the cruise industry?', <<https://edition.cnn.com/travel/article/cruise-industry-coronavirus-aftermath/index.html>>, accessed: 7 August 2023; M.H. Chen *et al.*, 'The impact of the SARS outbreak on Taiwanese hotel stock performance: An event-study approach', *International Journal of Hospitality Management* 26(1), 2007, pp. 200-212.

⁴⁶⁰ A. Wilder-Smith, 'The severe acute respiratory syndrome: impact on travel and tourism', *Travel medicine and infectious disease* 4(2), 2006, pp. 53-60.

⁴⁶¹ C.K. Mao *et al.*, 'Post-SARS tourist arrival recovery patterns: An analysis based on a catastrophe theory', *Tourism Management* 31(6), 2010, pp. 855-861.

⁴⁶² K.T. Chen *et al.*, 'SARS in Taiwan: an overview and lessons learned', *International Journal of Infectious Diseases* 9(2), 2005, pp. 77-85.

⁴⁶³ S. Elbe, 'Our epidemiological footprint: The circulation of avian flu, SARS, and HIV/AIDS in the world economy', *Review of International Political Economy* 15(1), 2007, pp. 116-130.

⁴⁶⁴ World Health Organization, 15 October 2004., 'WHO guidelines for the global surveillance of severe acute respiratory syndrome (SARS)', <https://cdn.who.int/media/docs/default-source/documents/health-topics/who-cds-csr-aro-2004-18fcd4ab9-a1ca-42f7-adaf-d5c624b54b76.pdf?sfvrsn=949080c3_1&download=true>, accessed: 7 August 2023.

⁴⁶⁵ World Health Organization, 12 March 2003., 'WHO launches global alert about cases of atypical pneumonia', <<https://www.who.int/news/item/12-03-2003-who-issues-a-global-alert-about-cases-of-atypical-pneumonia>>, accessed: 7 August 2023.

segregation of individuals suspected of being infected, the use of protective equipment and the implementation of appropriate disinfection protocols.⁴⁶⁶ Crisis communication techniques were devised and executed by governmental bodies and health authorities in order to provide information to the general public on the current state of the pandemic, preventative measures and updates on containment endeavours.⁴⁶⁷

The implementation of resilient surveillance systems and expeditious reporting of suspicious cases facilitated the identification of outbreaks by health authorities, enabling them to promptly intervene and mitigate the risk of further escalation. The establishment of transparent communication channels by governmental bodies and health authorities played a crucial role in fostering public confidence and facilitating the comprehension of the outbreak's characteristics, the significance of preventative measures and the advancements made in containment endeavours.⁴⁶⁸

The expeditious scientific endeavours aimed at comprehending the virus, devising diagnostic instruments and investigating prospective remedies have greatly helped the provision of efficient medical care and containment measures.⁷⁹ The implementation of these techniques, in conjunction with the unwavering commitment of healthcare professionals, the tenacity shown by impacted communities and the fostering of global collaboration, contributed to the restoration of societal equilibrium subsequent to the SARS pandemic.

Although the management of the SARS pandemic presented several difficulties, it is crucial to acknowledge that the global endeavours to mitigate the outbreak were mostly effective in containing the crisis.⁴⁶⁹ Nevertheless, several aspects of rules and processes were confronted with obstacles or experienced constraints. The onset of the SARS

⁴⁶⁶Y.C. Chen *et al.*, 'Infection control and SARS transmission among healthcare workers, Taiwan', *Emerging infectious diseases* 10(5), 2004, p. 895.

⁴⁶⁷Y.C. Hsu *et al.*, 'Risk and outbreak communication: lessons from Taiwan's experiences in the post-SARS era', *Health security* 15(2), 2017, pp. 165-169.

⁴⁶⁸G. Gopalakrishna *et al.*, 'SARS transmission and hospital containment', *Emerging infectious diseases* 10(3), 2004, p. 395.

⁴⁶⁹S. Navas-Martin & S.R. Weiss, 'SARS: lessons learned from other coronaviruses', *Viral Immunology* 16(4), 2003, pp. 461-474.

pandemic originated in China, prompting apprehensions over the timeliness of reporting and disseminating information pertaining to the outbreak to the global population. The importance of timely and honest reporting cannot be overstated in facilitating an efficient and comprehensive global response.⁴⁷⁰ Certain locations showed a deficiency in their monitoring systems and preparation strategies in addressing the emergence of infectious illnesses. This underscored the need of enhancing cooperative worldwide monitoring and reaction capabilities.⁴⁷¹ Instances of unbalanced travel advice and communication across nations were observed. This situation resulted in a state of confusion among individuals who were travelling and possibly impeded synchronised endeavours to mitigate the global transmission of the virus. Certain hospital settings encountered difficulties in safeguarding healthcare workers from SARS infections as a result of insufficient PPE, training and infection control policies.⁴⁷²

The SARS pandemic resulted in significant economic and societal ramifications that extended beyond the healthcare industry. The abrupt implementation of travel limitations and quarantine measures had a profound impact on tourism, commercial activities and the routines of the everyday life.⁴⁷³ Moreover, certain media organisations played a detrimental role in disseminating inaccurate information and engaging in sensationalism, therefore causing unwarranted alarm and fostering the stigmatisation of regions and populations impacted by certain events or circumstances.⁴⁷⁴ It is important to recognise that the reaction to the SARS pandemic resulted in significant insights gained and improvements in worldwide public health preparation and response.⁴⁷⁵ The issues that have been discovered underscore the need for enhanced coordination, communication

⁴⁷⁰ Y. Huang, 'The SARS epidemic and its aftermath in China: a political perspective', *Learning from SARS: Preparing for the next disease outbreak*, 2004, pp. 116-136.

⁴⁷¹ D.L. Heymann & G. Rodier, 'Global surveillance, national surveillance, and SARS', *Emerging infectious diseases* 10(2), 2004, p. 173.

⁴⁷² J.A. Al-Tawfiq *et al.*, 'Travel implications of emerging coronaviruses: SARS and MERS-CoV', *Travel medicine and infectious disease* 12(5), 2014, pp. 422-428.

⁴⁷³ Y.C. Chen *et al.*, 'Infection control and SARS transmission among healthcare workers, Taiwan', *Emerging infectious diseases* 10(5), 2004, p. 895.

⁴⁷⁴ World Travel & Tourism Council, 2003., 'Impact of Severe Acute Respiratory Syndrome on Tourism', <<https://wttc.org/research/economic-impact>>, accessed: 7 August 2023.

⁴⁷⁵ P. Washer, 'Representations of SARS in the British newspapers', *Social science & medicine* 59(12), 2004, pp. 2561-2571.

and investment in health infrastructure in order to successfully tackle future epidemics and pandemics.

4.2.2 Swine Influenza

The global outbreak of swine influenza, often referred to as the "swine flu",⁴⁷⁶ had a substantial influence on several sectors worldwide. Global economic loss was estimated at USD 360 billion.⁴⁷⁷ The following are ways in which it impacted the tourism industry. As a result of apprehensions over the virus and its propensity for transmission, a significant number of individuals who intended to travel opted to delay or altogether abandon their trip arrangements.⁴⁷⁸ Consequently, there was a notable decline in the demand for travel, thus impacting many sectors such as airlines, hotels, tour operators and other enterprises associated with the travel industry.⁴⁷⁹

The swine flu pandemic had a significant impact on the cruise industry.⁴⁸⁰ The occurrence of several prominent instances when the virus was transmitted inside the confines of cruise ships resulted in unfavourable public attitudes towards cruise travel and a subsequent decrease in reservations. In some countries, such as Mexico tourist sites,⁴⁸¹ museums, and other publicly accessible areas were temporarily shut as a preventive measure to curb the transmission of the virus.⁴⁸² The Carnival Cruise company even

⁴⁷⁶ T.H. Haque & M.O. Haque, 'The swine flu and its impacts on tourism in Brunei', *Journal of Hospitality and Tourism Management* 36, 2018, pp. 92-101.

⁴⁷⁷ T.H. Haque & M.O. Haque, 'The swine flu and its impacts on tourism in Brunei', *Journal of Hospitality and Tourism Management* 36, 2018, pp. 92-101.

⁴⁷⁸ E. Boğan & C. Çalışkan, '2. A literature review of the most influential pandemics and their impacts on the tourism industry', *COVID-19 and the Hospitality and Tourism Industry: A Research Companion*, 2021, p. 30.

⁴⁷⁹ M. Ertaş, 'Comparing the effects of COVID-19 pandemic on the tourism industry with other epidemics: A conceptual review', *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, 2021, pp. 161-175.

⁴⁸⁰ T.H. Haque & M.O. Haque, 'The swine flu and its impacts on tourism in Brunei', *Journal of Hospitality and Tourism Management* 36, 2018, pp. 92-101.

⁴⁸¹ J. Pike, 29 April 2009., 'Tour Operators Receiving Most Mexico Cancellations in Years', <<https://www.travelagentcentral.com/running-your-business/tour-operators-receiving-most-mexico-cancellations-years>>, accessed: 27 August 2023.

⁴⁸² G. Karabulut *et al.*, 'How pandemics affect tourism: International evidence', *Annals of tourism research* 84, 2020, p. 102991.

decided to reroute their ships and skip the Mexico port altogether.⁴⁸³ The outbreak of the swine flu pandemic brought attention to the need of enhancing health and safety protocols within the travel sector.⁴⁸⁴

Once the global outbreak of swine influenza gradually abated a range of policies and protocols had a role in restoring a state of normalcy worldwide. Nevertheless, it is crucial to acknowledge that the notion of 'normalcy' is subject to variation contingent upon several elements such as the extent of the pandemic's impact in certain areas, the efficacy of public health interventions and the progress made in vaccine development.⁴⁸⁵

Numerous nations instituted travel restrictions and conducted health tests at airports to detect and quarantine suspected cases. Individuals exhibiting symptoms like those of influenza were often subjected to health screenings and then subjected to quarantine protocols.⁴⁸⁶ The implementation of measures such as border closures, quarantines, and restrictions on foreign flights had a significant impact on the worldwide tourist industry.⁴⁸⁷ Following the development of a vaccine, further vaccination efforts were initiated with the aim of safeguarding individuals from swine flu. Frequently, emphasis was placed on prioritising those at elevated risk, including healthcare professionals, expectant mothers and persons with pre-existing medical issues.⁴⁸⁸ Public health campaigns were initiated by governments and health organisations with the aim of providing public education on the virus, its associated symptoms and preventative measures. The provided material

⁴⁸³ D. Eisen, 28 April 2009., 'Swine Flu Prompts Carnival to Cancel Mexico Calls', <<https://www.travelagentcentral.com/destinations/swine-flu-prompts-carnival-to-cancel-mexico-calls>>, accessed: 27 August 2023.

⁴⁸⁴ M. Siegrist & A. Zingg, 'The role of public trust during pandemics', *European psychologist* 19(1), 2014.

⁴⁸⁵ G.E. Patterson *et al.*, 'Societal impacts of pandemics: Comparing COVID-19 with history to focus our response', *Frontiers in public health* 9, 2021, p. 630449.

⁴⁸⁶ V. Gupta & G. Sahu, 'Virus outbreaks and tourism resilience strategies: A perspective of asian countries', in S.K. Kulshreshtha (ed.) *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, pp. 59-74.

⁴⁸⁷ M. Ertaş, 'Comparing the effects of COVID-19 pandemic on the tourism industry with other epidemics: A conceptual review', *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, 2021, pp. 161-175.

⁴⁸⁸ A.A. Ankomah *et al.*, 'The long road of pandemic vaccine development to rollout: A systematic review on the lessons learnt from the 2009 H1N1 influenza pandemic', *American Journal of Infection Control* 50(7), 2022, pp. 735-742.

included topics such as hand cleanliness, respiratory etiquette and appropriate circumstances for seeking medical assistance.⁴⁸⁹

Governments often accumulated drugs in reserve and then disseminated them when required. Antiviral agents, such as oseltamivir,⁴⁹⁰ were used for the purpose of managing and mitigating the effects of swine flu.⁴⁹¹ The discovery and dissemination of vaccinations targeting the H1N1 virus played a crucial role in mitigating the transmission of the virus and mitigating the severity of associated illnesses.⁹³ Vaccination efforts were strategically directed towards people at high risk, resulting in the gradual development of population-wide immunity. Hospitals and healthcare institutions proactively devised strategies to address the possibility of increased patient volumes, including triage protocols, treatment procedures and infection control measures. Several nations introduced more stringent border control measures, which included health screenings and compulsory quarantines for individuals arriving from regions impacted by the outbreak. Numerous nations had pre-existing pandemic preparation strategies that were implemented in response to the swine flu pandemic.⁴⁹² The aforementioned programmes delineated techniques for fostering collaboration across diverse sectors, including healthcare, transportation and government.

The development of vaccinations posed a significant problem in terms of their equitable distribution to all people, particularly those residing in lower-income countries.⁴⁹³ The complexity of ensuring fair access to vaccinations arises from several variables, including manufacturing capacity, distribution infrastructure and fiscal restraints.⁴⁹⁴ There was a

⁴⁸⁹ S. Rewar *et al.*, 'Treatment and prevention of pandemic H1N1 influenza', *Annals of global health* 81(5), 2015, pp. 645-653.

⁴⁹⁰ commonly known as Tamiflu

⁴⁹¹ J. Oxford, 'Oseltamivir in the management of influenza', *Expert Opinion on Pharmacotherapy* 6(14), 2005, pp. 2493-2500.

⁴⁹² V. Gupta & G. Sahu, 'Virus outbreaks and tourism resilience strategies: A perspective of asian countries', in S.K. Kulshreshtha (ed.) *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, pp. 59-74.

⁴⁹³ World Health Organization, 20 December 2021., 'Coronavirus disease (COVID-19) pandemic', <<https://www.who.int/emergencies/diseases/novel-coronavirus-2019>>, accessed: 8 August 2023.

⁴⁹⁴ World Health Organisation Team, 24 July 2015., 'Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003', <<https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>>, accessed: 7 August 2023.

notable presence of hesitancy or reluctance among some people in accepting the swine flu vaccine, hence exerting an influence on the overall efficacy of immunisation initiatives. “Vaccine hesitancy”⁴⁹⁵ is a multifaceted phenomenon that is shaped by a range of variables, such as the dissemination of inaccurate information and the erosion of trust. The global swine flu pandemic exerted significant pressure on healthcare systems worldwide, resulting in the overburdening of hospitals and the exhaustion of medical professionals.⁴⁹⁶ This may have impeded the provision of efficient patient care and timely reaction.

The use of improved testing and surveillance capacities facilitated the monitoring of the virus's transmission, detection of new cases and enhanced responsiveness to outbreaks by health authorities.⁴⁹⁷ Healthcare systems underwent adaptations in response to the exigencies of the pandemic, augmenting their ability to provide treatment and effectively handle those afflicted with the infection. Hospitals and medical institutions have established processes to effectively manage and address the challenges posed by infectious illnesses.⁴⁹⁸

Public health initiatives disseminated information to the general population on the virus, its associated symptoms and strategies for prevention. Following the decline of the pandemic, there was a gradual easing of travel restrictions, leading to a subsequent revival of the travel and tourism sector.⁴⁹⁹ The enhanced implementation of health and safety procedures within the sector contributed to the facilitation of this recovery. Scientists and researchers from several global institutions partnered to conduct a

⁴⁹⁵ Centers for Disease Control and Prevention, 2 August 2021., ‘Interim Guidance for Health Professionals’, <<https://www.cdc.gov/coronavirus/mers/interim-guidance.html>>, accessed: 7 August 2023.

⁴⁹⁶ S. Navas-Martin & S.R. Weiss, ‘SARS: lessons learned from other coronaviruses’, *Viral Immunology* 16(4), 2003, pp.461-474.

⁴⁹⁷ J.S. Edge & S.J. Hoffman, ‘Strengthening national health systems' capacity to respond to future global pandemics’, in S.E. Davies & J.R. Youde, *The Politics of Surveillance and Response to Disease Outbreaks*, pp. 157-179.

⁴⁹⁸ V. Gupta & G. Sahu, ‘Virus outbreaks and tourism resilience strategies: A perspective of asian countries’, in S.K. Kulshreshtha (ed.) *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, pp. 59-74.

⁴⁹⁹ P. Kumar & H.B. Rout, ‘Impact assessment of COVID-19: In tourism perspective’, *Dogo Rangsang Research Journal* 10(6), 2020, pp. 281-295.

comprehensive investigation on the virus, including its transmission dynamics and the resulting impacts on affected individuals. This study investigated an expansive phylogenetic analysis of spatial ecology and evolution of influenza A viruses in swine sequence data.⁵⁰⁰ This study has made a significant contribution towards enhancing our comprehension of the virus and facilitating the development of successful ‘Complementary and Alternative Medicine’ (CAM) therapies.⁵⁰¹

Schools in the USA decided to close in an attempt to contain the spread of the virus, with roughly 700 schools closing and affecting more than 126 000 students in 19 states.⁵⁰² Consequently, there was a heightened level of consciousness about cleanliness protocols, sanitation measures and health checks implemented at airports and other facilities associated with travel.⁵⁰³ The efficacy of policies and processes may be impacted by external circumstances that are outside the realm of government control, such as the exceptional character of the pandemic, the increasing comprehension of scientific knowledge and geopolitical issues.⁵⁰⁴ Comprehending the intricacies of pandemic management necessitates the examination of several viewpoints and the acknowledgment that obstacles are often interrelated.⁵⁰⁵

4.2.3 MERS

The outbreak of MERS in 2012 had a substantial influence on the travel and tourism sector, namely within the Middle Eastern geographical area. Tourists exhibited reluctance to go to countries that had documented instances of MERS owing to apprehensions over their well-being and security. Numerous conferences, events and business meetings

⁵⁰⁰ M. Nelson *et al.*, ‘Global migration of influenza A viruses in swine’, *Nature Communications* 6, 2015, p. 6696.

⁵⁰¹ R. Arora *et al.*, ‘Potential of complementary and alternative medicine in preventive management of novel H1N1 flu (Swine flu) pandemic: thwarting potential disasters in the bud’, *Evidence-Based complementary and alternative medicine (2011)*, 2010, pp. 1-16.

⁵⁰² C. Krupa, 28 October 2009., ‘Swine flu closes more than 600 schools in U.S.’, <<https://www.nbcnews.com/id/wbna33520744>>, accessed: 27 August 2023.

⁵⁰³ C.M. Hall *et al.*, ‘Pandemics, transformations and tourism: Be careful what you wish for’, *Tourism geographies* 22(3), 2020, pp. 577-598.

⁵⁰⁴ World Health Organization, 30 November 2021., ‘WHO advice for international traffic in relation to the SARS-CoV-2 Omicron variant (B.1.1.529)’, <<https://www.who.int/news-room/articles-detail/who-advice-for-international-traffic-in-relation-to-the-sars-cov-2-omicron-variant>>, accessed: 7 August 2023.

⁵⁰⁵ H. Wagenaar & B. Prainsack, *The pandemic within: Policy making for a better world*, p. 133.

were either cancelled or rescheduled because of apprehensions around the MERS infection. The hospitality industry, including hotels, convention centres and associated service providers, was impacted by this phenomenon. Consequently, there was a notable decrease in the number of tourists visiting the destination, resulting in a negative financial effect on hotels, restaurants and other enterprises operating within the tourism sector.⁵⁰⁶ To mitigate the transmission of the virus, several countries again enforced travel restrictions and instituted screening protocols, therefore affecting the mobility of individuals.⁵⁰⁷ Airlines saw a decline in demand as passengers chose to delay or cancel their flights to and from locations that were impacted which resulted in adverse financial consequences.⁵⁰⁸ Several airlines implemented the suspension or reduction of flights to and from locations impacted by certain circumstances, resulting in a notable decrease in both international and local traffic.⁵⁰⁹ Governmental bodies and tourist authorities implemented several strategies aimed at enhancing cleanliness and safety protocols with the objective of restoring confidence among travellers.⁵¹⁰ The implementation of health inspections and safety procedures at airports had an impact on the overall passenger experience.⁵¹¹

Certain countries implemented temporary suspensions or limitations on public meetings, festivals and religious pilgrimages as a means to mitigate the potential spread of viruses inside densely populated environments.⁵¹² The Middle East has emerged as a prominent hub for religious tourism, drawing a substantial number of pilgrims annually to revered

⁵⁰⁶ K. Nah *et al.*, 'Predicting the international spread of Middle East respiratory syndrome (MERS)', *BMC infectious diseases* 16(1), 2016, pp. 1-9.

⁵⁰⁷ V. Gupta & G. Sahu, 'Virus outbreaks and tourism resilience strategies: A perspective of asian countries', in S.K. Kulshreshtha (ed.) *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, pp. 59-74.

⁵⁰⁸ T.H. Haque & M.O. Haque, 'The swine flu and its impacts on tourism in Brunei', *Journal of Hospitality and Tourism Management* 36, 2018, pp. 92-101.

⁵⁰⁹ V. Gupta & G. Sahu, 'Virus outbreaks and tourism resilience strategies: A perspective of asian countries', in S.K. Kulshreshtha (ed.) *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, pp. 59-74.

⁵¹⁰ G. Nhamo *et al.*, 'Impact of COVID-19 on Global religious tourism and pilgrimages', *Counting the cost of COVID-19 on the global tourism industry*, 2020, pp. 251-272.

⁵¹¹ G.L. Gilbert, 'Commentary: SARS, MERS and COVID-19—new threats; old lessons', *International Journal of Epidemiology* 49(3), 2020, pp. 726-728.

⁵¹² K. Nah *et al.*, 'Predicting the international spread of Middle East respiratory syndrome (MERS)', *BMC infectious diseases* 16(1), 2016, pp.1-9.

places such as Mecca and Medina in Saudi Arabia.⁵¹³ Saudi Arabia's religious pilgrimage Hajj and Umrah brings in an estimated USD 12 billion to the GDP of the country.⁵¹⁴ Taking these figures into account the pandemic of MERS led to a decline in the number of pilgrims, hence impacting the lucrative financial gains derived from religious tourism.⁵¹⁵

The cruise sector had difficulties as travellers reassessed their cruise itineraries and reservations in light of health-related apprehensions, a situation that is particularly relevant for cruises that involved stops in the Middle East.⁵¹⁶ The apprehension surrounding the acquisition of the virus dissuaded individuals from embarking on journeys to the Middle East, so impacting the total demand for tourism and subsequently prolonging the duration required for the sector to recuperate.⁵¹⁷ The decrease in income generated from tourism has wider implications for the economy, given that the tourist industry plays a substantial role in contributing to the GDP of several Middle Eastern nations.⁵¹⁸

In response to the outbreak, hospitals and healthcare institutions in impacted nations implemented infection prevention and control strategies, which included the implementation of rigorous isolation techniques for individuals suspected or proven to have MERS.⁵¹⁹ In addition, healthcare professionals had training sessions focused on adhering to appropriate hygiene protocols and implementing protective measures. To further ensure the overall safety, public awareness campaigns were initiated by health

⁵¹³ D.H. Olsen, *Religion, pilgrimage and tourism in the Middle East*, *Routledge handbook on tourism in the Middle East and North Africa*, pp. 109-124.

⁵¹⁴ G.N. Alam, 'The impacts of COVID-19 to Saudi Arabia's economic sector and Hajj pilgrimage policy of the Kingdom of Saudi Arabia', *Turkish Journal of Computer and Mathematics Education (TURCOMAT)* 12(8), 2021, pp. 463-472.

⁵¹⁵ G. Nhamo *et al.*, 'Impact of COVID-19 on Global religious tourism and pilgrimages', *Counting the cost of COVID-19 on the global tourism industry*, 2020, pp. 251-272.

⁵¹⁶ G. Karabulut *et al.*, 'How pandemics affect tourism: International evidence', *Annals of tourism research* 84, 2020, p. 102991.

⁵¹⁷ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be careful what you wish for', *Tourism geographies* 22(3), 2020, pp. 577-598.

⁵¹⁸ G.L. Gilbert, 'Commentary: SARS, MERS and COVID-19—new threats; old lessons', *International Journal of Epidemiology* 49(3), 2020, pp. 726-728.

⁵¹⁹ W. Weng *et al.*, 'Tourist behavior during disease outbreaks and wellbeing', *Chapters*, 2022, pp.234-251.

authorities with the aim to educate the general population about the symptoms, transmission and preventive strategies associated with MERS.⁵²⁰

The strategies used included the dissemination of informative materials, the implementation of public service announcements, and the utilisation of various social media platforms. Health officials performed a comprehensive contact tracing process in order to identify and closely monitor persons who had been in close proximity to confirmed cases of MERS.⁵²¹ The individuals in question were subjected to symptom monitoring and, if deemed appropriate, were placed under quarantine. To avoid future transmission, healthcare institutions used isolation measures for individuals who were confirmed or suspected to have MERS. Research and cooperation among international health organisations, research institutes and health authorities of impacted countries were undertaken in order to enhance understanding of the MERS virus.⁵²²

In response to the perceived association between MERS-CoV and camels, many nations implemented strategies aimed at enhancing hygiene practises and minimising human-camel interactions.⁵²³ These efforts included advocating for thorough hand cleanliness after contact with camels and discouraging the eating of uncooked camel-derived items. Efforts to promote domestic tourism as a means to encourage residents to explore their own countries was another mechanism aimed to relieve the negative financial impact of the pandemic. Governments also have the potential to implement various measures such as incentives, discounts or campaigns in order to stimulate local tourism and offer assistance to the hotel sector.

It was essential for governmental bodies to provide timely and precise information on the current state of the pandemic, precautionary measures and warnings pertaining to travel.

⁵²⁰ L. Du *et al.*, 'Vaccines for the prevention against the threat of MERS-CoV', *Expert review of vaccines* 15(9), 2016, pp.1123-1134.

⁵²¹ W. Widagdo *et al.*, 'MERS-coronavirus: From discovery to intervention', *One Health* 3, 2017, pp.11-16.

⁵²² G. Karabulut *et al.*, 'How pandemics affect tourism: International evidence', *Annals of tourism research* 84, 2020, p. 102991.

⁵²³ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be careful what you wish for', *Tourism geographies* 22(3), 2020, pp. 577-598.

This proactive approach is crucial in mitigating misunderstanding among populations and reinstating trust and confidence. The practise of transparent communication facilitates the ability of travellers to make well-informed choices.⁵²⁴ Governments have the potential to provide financial aid, tax incentives or grants to enterprises operating within the travel and tourism industry, with the aim of assisting them in mitigating the adverse effects of the economic slump resulting from a decrease in travel demand.⁵²⁵ These propositions entail advocating for the implementation of flexible refunds and cancellation policies across the airline, hotel and travel agency sectors.⁵²⁶ The implementation of information campaigns aimed at enhancing public understanding on MERS symptoms, preventive measures and the need of seeking medical attention also played a crucial role in effectively managing public views and behaviours.⁵²⁷

The objective was to provide travellers a sense of assurance and promote more reservations. It is important to engage in collaborative efforts with international organisations, neighbouring nations and health authorities in order to create standardised standards for cross-border travel. These protocols should aim to ensure the safety of individuals, while simultaneously minimising any potential interruptions. To optimise the experience of travellers, mitigate physical touch and promote health and safety protocols, it is advisable to allocate resources towards the use of digital solutions and contactless technology.⁵²⁸ Another way to reduce the effect of future respiratory pandemics is by establishing contingency plans that delineate precise measures to be implemented in the event of health emergencies, and thereby assuring the preparedness of the travel and tourism sector for prospective epidemics and pandemics.⁵²⁹ Furthermore, by delivering comprehensive training sessions to those employed in the tourist sector, that focus on

⁵²⁴ H.N. Leong *et al.*, 'SARS in Singapore-predictors of disease severity', *Annals-Academy of Medicine Singapore* 35(5), 2006, pp. 326.

⁵²⁵ H. Wagenaar & B. Prainsack, *The pandemic within: Policy making for a better world*, pp. 133.

⁵²⁶ International Air Transport Association, 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

⁵²⁷ W. Weng *et al.*, 'Tourist behavior during disease outbreaks and wellbeing', *Chapters*, 2020, pp. 234-251.

⁵²⁸ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be careful what you wish for', *Tourism geographies* 22(3), 2020, pp. 577-598.

⁵²⁹ M. Siegrist & A. Zingg, 'The role of public trust during pandemics', *European psychologist* 19(1) 2014.

imparting knowledge and skills pertaining to health and safety procedures. By doing so it will equip workers in the tourism sector with the necessary expertise to offer a secure and hospitable environment for travellers.⁵³⁰ The process of returning to a “state of normality”⁵³¹ after a pandemic requires the integration of several elements, including public health interventions, scientific investigation and the passage of time.

Investigation into the attributes of the virus and endeavours towards the creation of a vaccine had the potential to significantly mitigate the disease's ramifications over an extended period.⁵³² The facilitation of information sharing and coordination of responses was made possible via international cooperation among governments, health organisations and researchers. It is noteworthy that the MERS pandemic did not have a comparable worldwide impact to that of the later COVID-19 pandemic, and the strategies used to mitigate its effects may not immediately align with the restoration of societal conditions to a “state of normalcy”.⁵³³

The presence of substantial communication deficiencies among impacted nations, international health entities and the general populace may have impeded the efficacy of coordinated responses and containment endeavours in relation to the MERS pandemic.⁵³⁴ The dissemination of inaccurate information and unfounded rumours may also have eroded public confidence in authoritative health advice and the effectiveness of response measures, so instigating dread and causing widespread panic.⁵³⁵ Policies that only prioritised containment measures, without taking into account the economic

⁵³⁰ United Nations World Tourism Organisation, 28 May 2020., ‘Global Guidelines to Restart Tourism’, <<https://www.unwto.org/news/unwto-launches-global-guidelines-to-restart-tourism>>, accessed: 7 August 2023,

⁵³¹ N. Madhav *et al.*, ‘Pandemics: risks, impacts, and mitigation’, *in* Disease Control Priorities: Improving Health and Reducing Poverty 3, 2018, pp. 315-345.

⁵³² D.S. Hui *et al.*, ‘Spread of MERS to South Korea and China’, *The Lancet Respiratory Medicine* 3(7), 2015, pp. 509-510.

⁵³³ G.E. Patterson *et al.*, ‘Societal impacts of pandemics: Comparing COVID-19 with history to focus our response’, *Frontiers in Public Health* 9, 2021, p. 630449.

⁵³⁴ Y.H.C. Huang *et al.*, ‘Crisis communication in context: Cultural and political influences underpinning Chinese public relations practice’, *Public Relations Review* 42(1), 2016, pp. 201-213.

⁵³⁵ H.N. Leong *et al.*, ‘SARS in Singapore-predictors of disease severity’, *Annals-Academy of Medicine Singapore* 35(5), 2006, p. 326.

consequences, may have had adverse effects on several sectors and possibly impeded the process of recovery.⁵³⁶

4.2.4 COVID-19

The 2019 global outbreak of the COVID-19 pandemic had a significant and far-reaching effect on several sectors, including the travel and tourist industry. It has been estimated that over the past three years the COVID-19 pandemic has cut the global economic output by USD 8.5 trillion.⁵³⁷ There was a notable decline in tourism-related endeavours. The limitation on the global movement of individuals saw a cessation because of travel restrictions and apprehension around the viral outbreak. The closure of airports, cancellation of flights by airlines and significant decline in worldwide tourist flows were observed globally. Numerous airlines were compelled to implement workforce reductions and seek governmental assistance, with some even facing bankruptcy and closure.⁵³⁸

The cruise industry also saw significant adverse effects because of infections occurring aboard cruise ships, which subsequently resulted in a substantial decrease in both bookings and operational activities. Hotels and lodging establishments saw closures, particularly in regions strongly dependent on tourism.⁵³⁹ The closure and decline in tourist numbers had a detrimental impact on a local level at cultural sites, museums, and for heritage tourism in general with an estimated loss in tourism to the value of 2.86 trillion US dollars.⁵⁴⁰ The aforementioned factors had a significant influence on both the financial earnings and the endeavours aimed at safeguarding and maintaining heritage spaces. Numerous conferences, trade exhibitions and events were rendered null or transitioned to virtual platforms, hence exerting a negative impact on business travel and its associated sectors.

⁵³⁶ Y. Choe *et al.*, 'The impact of the Middle East Respiratory Syndrome coronavirus on inbound tourism in South Korea toward sustainable tourism', *Journal of Sustainable Tourism* 29(7), 2021, pp. 1117-1133.

⁵³⁷ M. Geraci, 'Part 4: International Development and COVID-19. *US-China Relations in the Age of COVID-19*', *Politics, Polemics and Pandemic Response Measures*, 2020, p. 39.

⁵³⁸ G. Nhamo *et al.*, 'COVID-19 and implications for the aviation sector: A global perspective', *Counting the cost of COVID-19 on the global tourism industry*, 2020, pp. 89-107.

⁵³⁹ G. Karabulut *et al.*, 'How pandemics affect tourism: International evidence', *Annals of tourism research* 84, 2020, p. 102991.

⁵⁴⁰ J. Abbas *et al.*, 'Exploring the impact of COVID-19 on tourism: transformational potential and implications for a sustainable recovery of the travel and leisure industry', *Current Research in Behavioral Sciences* 2, 2021, p. 100033.

Governments and organisations worldwide enacted a range of strategies in response to the COVID-19 pandemic. The aforementioned measures were implemented with the objective of mitigating the transmission of the virus, safeguarding the well-being of the general population and effectively addressing the consequences in both societal and economic domains.⁵⁴¹ Numerous countries enacted travel limitations, including the closing of borders, implementation of quarantine protocols and imposition of lockdown measures, that significantly restricted both international and domestic travel.⁵⁴²

Numerous countries enforced lockdowns or issued stay-at-home directives, with the intention of imposing limitations on mobility and social gatherings and thereby mitigating the possible spread of the virus.⁵⁴³ The intensity and duration of these measurements exhibited variation. Governments implemented travel restrictions, border closures and mandated quarantine measures for those entering the nation. The implemented measures included the maintenance of physical distancing, the imposition of restrictions on the scale of gatherings and the promotion of remote work as a means to mitigate the spread of the virus between individuals.⁵⁴⁴ Numerous governmental bodies enforced the compulsory use of facial masks or covers inside communal areas as a measure to mitigate the transmission of respiratory droplets. The implementation of policies that prioritised extensive testing for COVID-19, along with diligent contact tracing initiatives aimed at identifying and isolating persons who had contracted the virus. Individuals who were infected were subjected to isolation measures.⁵⁴⁵

Vaccination initiatives were implemented by governments with the aim of attaining comprehensive protection against the COVID-19 virus, included the strategic allocation of resources to high-risk populations, followed by a subsequent expansion of access to

⁵⁴¹ I. Ayouni *et al.*, 'Effective public health measures to mitigate the spread of COVID-19: a systematic review', *BMC Public Health* 21(1), 2021, p. 1015.

⁵⁴² M. Chinazzi *et al.*, 'The effect of travel restrictions on the spread of the 2019 novel coronavirus (COVID-19) outbreak', *Science* 368(6489), 2020, pp. 395-400.

⁵⁴³ S. Devi, 'Travel restrictions hampering COVID-19 response', *The Lancet* 395(10233), 2020, pp. 1331-1332.

⁵⁴⁴ N.A. Bakar & S. Rosbi, 'Effect of Coronavirus disease (COVID-19) to tourism industry', *International Journal of Advanced Engineering Research and Science* 7(4), 2020.

⁵⁴⁵ H. Kluge *et al.*, 'Strengthening global health security by embedding the International Health Regulations requirements into national health systems', *BMJ global health* 3(1), 2018, p. e000656.

the broader public.⁵⁴⁶ Numerous governmental entities implemented economic stimulus packages, financial assistance initiatives and relief programmes with the aim of providing help to companies, workers and marginalised communities who were adversely impacted by the ongoing pandemic.⁵⁴⁷ It is noteworthy to acknowledge that the efficacy and ramifications of these strategies exhibited variability contingent upon aspects such as the healthcare infrastructure's capabilities, societal customs and governmental receptiveness.⁵⁴⁸

The controlled relaxation of travel limitations and the adoption of travel protocols, such as mandatory testing or proof of vaccination, were used to facilitate secure mobility of individuals while mitigating the potential for disease transmission.⁵⁴⁹ Numerous organisations used hybrid work models, which included a combination of remote and in-person labour, as a means to maintain uninterrupted company operations while mitigating the potential for workplace transmission. Some governments devised and executed economic stimulus packages and recovery programmes with the aim of providing help to companies, people and sectors that had been adversely impacted by the pandemic. Some governments had substantial difficulties in providing help to the travel and tourism sector.⁵⁵⁰ Some governmental bodies have implemented specific financial assistance projects and relief measures aimed at supporting small and medium-sized enterprises in the travel and tourism sector, since these firms often have resource constraints that hinder their ability to withstand extended periods of economic decline.⁵⁵¹ Educational institutions implemented operational modifications, using a combination of face-to-face

⁵⁴⁶ J. Wang *et al.*, 'The COVID-19 vaccine race: challenges and opportunities in vaccine formulation', *Aaps Pharmscitech* 21, 2020, pp. 1-12.

⁵⁴⁷ L. Chakraborty *et al.*, 'COVID-19 and Economic Stimulus Packages: Evidence from the Asia-Pacific Region', *New Delhi: National Institute of Public Finance and Policy*, 2021.

⁵⁴⁸ A. Peci *et al.*, 'Governmental responses to COVID-19 Pandemic', *Revista de Administração Pública* 55, 2021, pp. 1-11.

⁵⁴⁹ N.A. Bakar & S. Rosbi, 'Effect of Coronavirus disease (COVID-19) to tourism industry', *International Journal of Advanced Engineering Research and Science* 7(4), 2020.

⁵⁵⁰ M. Škare *et al.*, 'Impact of COVID-19 on the travel and tourism industry', *Technological Forecasting and Social Change* 163, 2021, p.120469.

⁵⁵¹ C.M. Rogerson & J.M. Rogerson, 'COVID-19 tourism impacts in South Africa: Government and industry responses', *Geo Journal of Tourism and Geosites* 31(3), 2020, pp.1083-1091; A. Allaberganov *et al.*, 'Government commitment to tourism and hospitality sector during COVID-19 pandemic', *Tourism Critiques: Practice and Theory* 2(2), 2021, pp.153-169.

and remote learning approaches, in order to maintain educational continuity while placing a high emphasis on the safety of students and staff members.⁵⁵²

The availability of crucial commodities, such as medical supplies and PPE, was impacted by global interruptions in the supply chain.⁵⁵³ The proliferation of inaccurate information and conspiracy theories pertaining to the COVID-19 pandemic also posed challenges to the dissemination of public health messages and played a critical role in the promotion of misguided behaviours motivated by disinformation.⁵⁵⁴

This global health crisis expedited the integration of digital innovations into the travel sector, including various advancements such as contactless payment systems, health and safety applications, and virtual tour experiences. In an effort to resolve the negative consequences, governments and organisations implemented many procedures and steps to facilitate the safe resumption of tourism.⁵⁵⁵

4.3 Road to Recovery: Harnessing Policies for Resilience

The implementation of policies during pandemics in the twenty-first century has emerged as a crucial tool in effectively managing the trajectory towards recovery.⁵⁵⁶ Efforts were made by governments and industry players to restore the trust of travellers by implementing comprehensive health and safety measures.⁵⁵⁷ Strategies aimed at ensuring resilience against future pandemics increasingly emphasised investments in

⁵⁵² C.M. Rogerson & J.M. Rogerson, 'COVID-19 tourism impacts in South Africa: Government and industry responses', *Geo Journal of Tourism and Geosites* 31(3), 2020, pp. 1083-1091.

⁵⁵³ J. Ahmed *et al.*, 'Availability of personal protective equipment (PPE) among US and Pakistani doctors in COVID-19 pandemic', *Cureus* 12(6), 2020.

⁵⁵⁴ V. Gupta & G. Sahu, 'Virus outbreaks and tourism resilience strategies: A perspective of asian countries', in S.K. Kulshreshtha (ed.) *Virus Outbreaks and Tourism Mobility: Strategies to Counter Global Health Hazards*, pp. 59-74

⁵⁵⁵ A.A. Lew *et al.*, 'Visions of travel and tourism after the global COVID-19 transformation of 2020', *Tourism Geographies* 22(3), 2020, pp. 455-466.

⁵⁵⁶ World Health Organisation Team, 24 July 2015., 'Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003', <<https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>>, accessed: 7 August 2023.

⁵⁵⁷ Centers for Disease Control and Prevention, 2 August 2019., 'Patients in the U.S. Who Should Be Evaluated for MERS-CoV Infection', <<https://www.cdc.gov/coronavirus/mers/interim-guidance.html>>, accessed: 7 August 2023.

technology, digital transformation and sustainable tourist practises.⁵⁵⁸ The twenty-first century has provided significant insights into the complexities associated with effectively controlling pandemics within the context of a globalised society.⁵⁵⁹ The travel and tourism sector, which often plays a leading role in economic and social engagements, requires forward-thinking strategies that effectively reconcile public health priorities with long-term economic viability. The urgency of preparing for future health catastrophes is underscored by collaborative endeavours aimed at establishing global health frameworks, enhancing disease monitoring and fortifying health systems.⁵⁶⁰

4.3.1 SARS

During the outbreak of SARS, governmental entities encountered a multitude of hurdles and shortcomings in their efforts to address the catastrophe. It is essential to acknowledge that despite encountering obstacles, several governments effectively adopted initiatives. The SARS pandemic presented governments with a range of problems and shortcomings. Certain governmental entities originally showed a tendency to postpone the reporting and acknowledgment of the pandemic, therefore impeding the early coordination and reaction endeavours on a worldwide scale.⁵⁶¹ In several instances, there was a deficiency in the dissemination of precise and prompt information to the world community, impeding the global efforts to address the pandemic.⁵⁶² Certain governments had difficulties as a result of insufficient public health infrastructure and a lack of readiness in addressing new infectious illnesses.⁵⁶³ The lack of consistency in communication and travel warnings across nations resulted in a state of uncertainty among travellers and

⁵⁵⁸ World Health Organization, 18 October 2021., 'Coronavirus disease (COVID-19) pandemic', <<https://www.who.int/europe/emergencies/situations/covid-19>>, accessed: 7 August 2023.

⁵⁵⁹ UNWTO, 28 May 2020., 'Global Guidelines to Restart Tourism', <<https://www.unwto.org/news/unwto-launches-global-guidelines-to-restart-tourism>>, accessed: 7 August 2023.

⁵⁶⁰ International Air Transport Association, 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

⁵⁶¹ Y. Huang, 'The SARS epidemic and its aftermath in China: a political perspective', *Learning from SARS: Preparing for the next disease outbreak*, 2004, pp. 116-136.

⁵⁶² World Health Organization, 15 October 2004., 'WHO guidelines for the global surveillance of severe acute respiratory syndrome (SARS)', <https://cdn.who.int/media/docs/default-source/documents/health-topics/who-cds-csr-aro-2004-18fcdcaab9-a1ca-42f7-adaf-d5c624b54b76.pdf?sfvrsn=949080c3_1&download=true>, accessed: 7 August 2023.

⁵⁶³ M. Frost *et al.*, 'Progress in public health risk communication in China: lessons learned from SARS to H7N9', *BMC public health* 19(3), 2019, pp. 1-9.

impeded the ability to effectively coordinate actions aimed at preventing the global transmission of the virus.⁵⁶⁴

The occurrence of the pandemic placed significant pressure on healthcare systems, resulting in infections among healthcare personnel as a consequence of insufficient provision of PPE and poor implementation of infection control measures.⁵⁶⁵ Governments had difficulties in effectively handling the economic and social upheavals stemming from the implementation of travel restrictions, quarantines and the subsequent decline in commercial activity.⁵⁶⁶ Certain governmental bodies had challenges in effectively addressing the issue of media sensationalism and dissemination of disinformation, resulting in unwarranted public alarm and the perpetuation of stigmatisation.⁵⁶⁷ It is important to underscore that the outbreak of SARS also served as a catalyst for governments to acquire valuable insights and implement measures aimed at enhancing their capabilities to effectively respond to such crises. Numerous governmental entities tried to bolster their public health infrastructure, augment communication tactics and foster more efficient collaboration with international organisations and neighbouring nations.

In retrospect, there are several lessons that can be gleaned about areas in which governments may have enhanced their reaction to mitigate the adverse effects on the sector. Governments might have enhanced their communication strategies by ensuring the provision of precise, coherent and punctual information pertaining to the current state of the pandemic, preventative actions and travel warnings. This would have facilitated travellers in making well-informed judgements.⁵⁶⁸ Instead of implementing broad travel

⁵⁶⁴ World Health Organization, 'WHO recommended measures for persons undertaking international travel from areas affected by severe acute respiratory syndrome (SARS)', *Weekly Epidemiological Record=Relevé épidémiologique hebdomadaire* 78(14), 2003, pp. 97-99.

⁵⁶⁵ Y.C. Chen *et al.*, 'Infection control and SARS transmission among healthcare workers, Taiwan', *Emerging infectious diseases* 10(5), 2004, p. 895.

⁵⁶⁶ A. Wilder-Smith, 'The severe acute respiratory syndrome: impact on travel and tourism', *Travel medicine and infectious disease* 4(2), 2006, pp. 53-60.

⁵⁶⁷ P. Wallis & B. Nerlich, 'Disease metaphors in new epidemics: the UK media framing of the 2003 SARS epidemic', *Social science & medicine* 60(11), 2005, pp. 2629-2639.

⁵⁶⁸ M.H. Chen *et al.*, 'The impact of the SARS outbreak on Taiwanese hotel stock performance: An event-study approach', *International Journal of Hospitality Management* 26(1), 2007, pp. 200-212.

recommendations, governments may have contemplated the implementation of more precise advisories that concentrate on particular impacted locations, so allowing unaffected regions to sustain visitor influx.⁵⁶⁹

Governments had the potential to provide financial aid in the form of assistance, grants or loans with favourable interest rates to hotels, airlines and other enterprises within the tourist sector that saw significant repercussions due to the decrease in consumer demand.⁵⁷⁰ Promoting domestic tourism might have perhaps mitigated the adverse effects stemming from the decline in foreign tourists. Governments had the potential to initiate initiatives aimed at promoting domestic tourism inside their own nations.⁵⁷¹ Governments might have collaborated with the business division to set unambiguous health and safety guidelines, including hygiene requirements for hotels, airlines and other facilities in the tourist sector, with the aim of instilling confidence among travellers. Governments may also have fostered more collaboration with international organisations such as the WHO in order to establish cohesive rules and norms pertaining to travel and tourism in times of health crisis.⁵⁷² Governments also had the potential to accelerate the deployment of recovery measures after the pandemic had been effectively managed.⁵⁷³ This may include the facilitation of visa procedures, the provision of incentives for hosting foreign conferences, and the backing of marketing initiatives.⁵⁷⁴ These strategies might have helped lessen the detrimental effect of the SARS pandemic on the travel and tourism sector.

⁵⁶⁹ World Travel & Tourism Council, 2003., 'Impact of Severe Acute Respiratory Syndrome on Tourism', <<https://wttc.org/research/economic-impact>>, accessed: 7 August 2023.

⁵⁷⁰ K.K. Hung *et al.*, 'The role of the hotel industry in the response to emerging epidemics: a case study of SARS in 2003 and H1N1 swine flu in 2009 in Hong Kong', *Globalization and health* 14, 2018, pp. 1-7.

⁵⁷¹ T.S. Tse & H. Qiu, 'Issues arising from the rapid growth of Mainland Chinese visitors to Hong Kong: Implications for tourism marketing', *Journal of China Tourism Research* 12(3-4), 2016, pp. 291-312.

⁵⁷² J.C. Henderson & A. Ng, 'Responding to crisis: severe acute respiratory syndrome (SARS) and hotels in Singapore', *International journal of tourism research* 6(6), 2004, pp. 411-419.

⁵⁷³ J.C. Min, 'The effect of the SARS illness on tourism in Taiwan: An empirical study', *International Journal of Management* 22(3), 2005, pp. 497.

⁵⁷⁴ J.W. Lee & W.J. McKibbin, 'Globalization and disease: The case of SARS', *Asian economic papers* 3(1), 2004, pp. 113-131.

4.3.2 Swine Influenza

Throughout the swine influenza pandemic, governmental entities encountered a multitude of obstacles and encountered several shortcomings in their management of the pandemic. It is essential to address the subject matter with due regard for the many nuances involved in the management of a worldwide health emergency. The challenges and drawbacks associated with the current pandemic are contingent upon many aspects, including the degree of preparation, the availability of resources, the effectiveness of communication tactics and the dynamic character of the situation. The following are a few of the prevalent issues and shortcomings that governments may have confronted with the swine influenza pandemic.

Certain governmental bodies had difficulties in efficiently disseminating precise information to the general populace. Effective communication that is clear, consistent and transparent plays a pivotal role during a pandemic in order to foster public confidence and promote compliance with prescribed actions. The allocation of healthcare resources, such as hospital beds, medical supplies and vaccinations, posed significant challenges in regions seeing a fast surge in the number of swine flu infected persons.⁵⁷⁵ The task of ensuring the fair allocation of resources was often challenging. The development of vaccinations was accompanied by many problems pertaining to their production and distribution on a large scale, within the required timeframe, to diverse populations. The complexity of ensuring accessibility for all people, particularly in lower-income nations, was evident. The economic repercussions the swine flu pandemic presented difficulties in effectively navigating the delicate equilibrium between implementing public health interventions and maintaining economic stability.⁵⁷⁶

Governments were faced with the challenge of managing limitations on commercial activities while also providing assistance to industries and people impacted by these restrictions. Diverse governmental entities employed a range of policies in reaction to the

⁵⁷⁵ S. Mallapaty, 'COVID reinfections surge during Omicron onslaught', *Nature* 10, 2022, pp.1-10.

⁵⁷⁶ S. Barua, 'Understanding coronanomics: The economic implications of the COVID-19 pandemic', *The Journal of Developing Areas* 55(3), 2021, pp. 435-450.

swine flu pandemic, resulting in a state of perplexity and incongruous consequences.⁵⁷⁷ The absence of comprehensive international cooperation impeded the efficacy of containment endeavours. Certain governmental bodies had difficulties in attaining public adherence to prescribed procedures, including but not limited to social distancing, mask usage and quarantine protocols.⁵⁷⁸ This phenomenon may arise as a result of the dissemination of inaccurate information, a prevailing sense of scepticism or a limited comprehension of the subject matter. Numerous healthcare systems encountered significant challenges as a result of heightened patient volumes and deficiencies in medical staff and resources.⁵⁷⁹

The reactions of some nations to the swine flu pandemic may have been impacted by political concerns and the dynamics of international relations. Effective collaboration among countries was of paramount importance, yet certain obstacles hindered this process. Issues such as the hesitancy of getting the vaccine and the need to achieve widespread immunisation coverage posed significant difficulties in some areas. The goal of addressing disinformation and fostering public confidence in the safety and effectiveness of vaccinations proved to be a multifaceted endeavour.⁵⁸⁰

Governments may have implemented strategies to incentivize citizens to engage in domestic tourism inside their own nations and regions, so fostering economic growth at the local level and bolstering the travel sector.⁵⁸¹ Implementing travel measures would have mitigated the level of uncertainty experienced by travellers and contributed to the preservation of international travel.⁵⁸² Governments may have used data analytics to

⁵⁷⁷ T.H. Baker & K. Judge, 'How to help small businesses survive COVID-19', *Columbia Law and Economics Working Paper* (620), 2020, pp. 1-12.

⁵⁷⁸ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be careful what you wish for', *Tourism geographies* 22(3), 2020, pp. 577-598.

⁵⁷⁹ E. Mattila *et al.*, 'COVID-19: anxiety among hospital staff and associated factors', *Annals of Medicine* 53(1), 2021, pp. 237-246.

⁵⁸⁰ X. Cai *et al.*, 'International collaboration during the COVID-19 crisis: autumn 2020 developments', *Scientometrics* 126(4), 2021, pp.3683-3692.

⁵⁸¹ G. Karabulut *et al.*, 'How pandemics affect tourism: International evidence', *Annals of tourism research* 84, 2020, p. 102991.

⁵⁸² C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be careful what you wish for', *Tourism geographies* 22(3), 2020, pp. 577-598.

facilitate informed decision-making about the implementation of border policies, so enabling more precise travel restrictions that align with the prevailing patterns of viral transmission.⁵⁸³ Furthermore, the implementation and effective dissemination of comprehensive crisis management strategies further added to provisions that could bolster the travel and tourist industry in the event of a pandemic.⁵⁸⁴ Ultimately governments should have improved collaboration with the travel industry to facilitate the promotion of safe and responsible travel practises, with a particular emphasis on the significance of following to health norms.⁵⁸⁵ By successfully implementing mitigation strategies, severely hit areas could have the chance to regain vital economic loss.⁵⁸⁶

4.3.3 MERS

Governments appear to have had difficulties in efficiently disseminating information on the MERS pandemic to the general public, resulting in the emergence of confusion, anxiety and dissemination of inaccurate information.⁵⁸⁷ The attainment of international cooperation and coordination among governments, health organisations, and research institutes may have encountered challenges, perhaps impeding the establishment of a cohesive and efficient response to MERS.⁵⁸⁸ Certain governmental bodies may have encountered challenges pertaining to insufficient healthcare infrastructure and limited resources in effectively managing an abrupt surge in patient numbers, perhaps resulting in overwhelming hospital capacities. It is essential for governments to establish and maintain public confidence in their implemented response strategies.⁵⁸⁹ Due to these response strategies, potential influence of compliance challenges in adhering to public

⁵⁸³ P. Nagaraj & A.K. Prasad, 'A Novel Technique to Predict the Hotspots Swine Flu Effectuated Regions', *Think India Journal* 22(41), 2020, pp. 1-10.

⁵⁸⁴ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be careful what you wish for', *Tourism geographies* 22(3), 2020, pp. 577-598.

⁵⁸⁵ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be Careful what you wish for', in A.A. Lew *et al.*, *Global Tourism and COVID-19*, pp. 123-144.

⁵⁸⁶ R.F. Ceylan & B. Ozkan, 'The economic effects of epidemics: from SARS and MERS to COVID-19', *Research Journal in Advanced Humanities* 1(2), 2020, pp. 21-29.

⁵⁸⁷ J. Yang & S. Lee, 'Framing the MERS information crisis: An analysis on online news media's rumour coverage', *Journal of Contingencies and Crisis Management* 28(4), 2020, pp. 386-398.

⁵⁸⁸ E. Feitelson *et al.*, 'Learning from others' disasters? A comparative study of SARS/MERS and COVID-19 responses in five polities', *International Journal of Disaster Risk Reduction* 74, 2022, p. 102913.

⁵⁸⁹ K.M. Lee & K. Jung, 'Factors influencing the response to infectious diseases: focusing on the case of SARS and MERS in South Korea', *International Journal of Environmental Research and Public Health* 16(8), 2019, p. 1432.

health norms, including those related to isolation and quarantine, on containment efforts warranted further consideration.⁵⁹⁰

4.3.4 COVID-19

During the COVID-19 pandemic, governments worldwide encountered a multitude of problems and setbacks. The obstacles experienced exhibited a range of characteristics and degrees of severity, contingent upon elements such as the healthcare system, government structure, economic situations and public compliance within each respective nation.⁵⁹¹

Certain governmental bodies had challenges in promptly acknowledging and addressing the nascent COVID-19 pandemic, resulting in the postponement of crucial interventions such as testing, contact tracing and quarantine regulations.⁵⁹² Due to the aforementioned causes and exponential increase of COVID-19 infections, this resulted in a significant strain on healthcare systems across several nations. There was a world-wide scarcity of hospital accommodations, medical resources and healthcare personnel.⁵⁹³

The lack of consistency or clarity in governmental communication about Covid-19 resulted in a state of bewilderment among the general populace, which in turn eroded trust and adherence to public health norms.⁵⁹⁴ This led governmental task teams to rethink their current plans to address political polarisation and ideological disparities which impeded the ability to establish cohesive solutions. The dissemination of inaccurate information and the proliferation of conspiracy theories about Covid-19 hindered public health

⁵⁹⁰ K. Wanjala, 'The Economic impact assessment of the novel coronavirus on tourism and Trade in Kenya: lessons from preceding epidemics', *Finance & Economics Review* 2(1), 2020, pp. 1-10.

⁵⁹¹ Z. Baloch *et al.*, 'Unique challenges to control the spread of COVID-19 in the Middle East', *Journal of Infection and Public Health* 13(9), 2020, pp. 1247-1250.

⁵⁹² A. Peci *et al.*, 'Governmental responses to COVID-19 Pandemic', *Revista de Administração Pública* 55, 2021, pp. 1-11.

⁵⁹³ N.C. Jordan-Martin *et al.*, 'Isolation hotels: a community-based intervention to mitigate the spread of the COVID-19 pandemic', *Health security* 18(5), 2020, pp. 377-382.

⁵⁹⁴ M.O. Rieger & M. Wang, 'Trust in government actions during the COVID-19 crisis', *Social Indicators Research* 159(3), 2022, pp. 967-989.

initiatives and led to widespread bewilderment among the general population.⁵⁹⁵ Certain governments encountered challenges in their efforts to guarantee equal and just distribution of vaccinations, hence exacerbating gaps in immunisation rates among various demographics and geographical areas.⁵⁹⁶ Due to all the aforementioned limitations, governments were faced with the intricate challenge of effectively managing travel restrictions and the reopening of borders, all the while striking a delicate balance between public health considerations and the need of economic recuperation.⁵⁹⁷ Finally, governments had difficulties in addressing the mental health repercussions of the Covid-19 pandemic, which included heightened levels of stress and depression experienced by the general populace.⁵⁹⁸

4.4 Conclusion

The advent of the twenty-first century has been characterised by a succession of paradigm-shifting pandemics that have had a profound impact on global society and economies.⁵⁹⁹ The twenty-first century has provided significant insights into the complexities associated with effectively controlling pandemics within the context of a globalised society.⁶⁰⁰ The travel and tourism industry, which serves as a representation of human interconnectedness, had unprecedented difficulties in the aftermath of these disasters.⁶⁰¹ Policies, which have arisen as a result of needs, have developed as symbols of optimism, providing guidance to countries and communities in their pursuit of recovery. In light of the ongoing challenges faced by the global community in the twenty-first

⁵⁹⁵ M.K. Elhadad *et al.*, 'Detecting misleading information on COVID-19', *IEEE Access* 8, 2020, pp. 165201-165215.

⁵⁹⁶ J. Stephenson, 'Unequal access to COVID-19 vaccines leaves less-wealthy countries more vulnerable, poses threat to global immunity', *JAMA Health Forum* 2(3), 2021, pp. e210505-e210505.

⁵⁹⁷ M.K. Rahman *et al.*, 'Effect of Covid-19 pandemic on tourist travel risk and management perceptions', *Plos one* 16(9), 2021, p. e0256486.

⁵⁹⁸ Y. Zheng *et al.*, 'The effects of misleading media reports about COVID-19 on Chinese tourists' mental health: a perspective article', *Anatolia* 31(2), 2020, pp. 337-340.

⁵⁹⁹ World Health Organisation Team, 24 July 2015., 'Summary of probable SARS cases with onset of illness from 1 November 2002 to 31 July 2003', <<https://www.who.int/publications/m/item/summary-of-probable-sars-cases-with-onset-of-illness-from-1-november-2002-to-31-july-2003>>, accessed: 7 August 2023.

⁶⁰⁰ Centers for Disease Control and Prevention (CDC), 2 August 2019., 'Patients in the U.S. Who Should Be Evaluated for MERS-CoV Infection', <<https://www.cdc.gov/coronavirus/mers/interim-guidance.html>>, accessed: 7 August 2023.

⁶⁰¹ UNWTO, 28 May 2020., 'Global Guidelines to Restart Tourism', <<https://www.unwto.org/news/unwto-launches-global-guidelines-to-restart-tourism>>, accessed: 7 August 2023.

century, the knowledge gained from previous pandemics will provide a fundamental basis for constructing a future characterised by resilience, adaptability and collective action in response to the perils posed by infectious illnesses.⁶⁰² The need of preparing for future health crises is highlighted by collaborative endeavours aimed at establishing global health frameworks, enhancing disease monitoring and fortifying health systems.⁶⁰³

⁶⁰² International Air Transport Association (IATA), 5 October 2021., 'Six More Airlines Implement IATA Travel Pass', <<https://www.iata.org/en/pressroom/pressroom-archive/2021-releases/2021-10-05-02/>>, accessed: 7 August 2023.

⁶⁰³ World Health Organization, 18 October 2021., 'Coronavirus disease (COVID-19) pandemic', <<https://www.who.int/europe/emergencies/situations/covid-19>>, accessed: 7 August 2023.

Chapter 5: Lessons for the Future: Navigating the Road Ahead

Over the past few decades, the global tourism industry has seen significant difficulties and changes, leading to a critical juncture in its development. The worldwide tourism sector has endured significant consequences as a result of the COVID-19 pandemic, leading to a complete cessation of activities and necessitating a reassessment of its operational strategies.⁶⁰⁴ This chapter examines possible future scenarios for the tourism sector in light of recent pandemics that have impacted the global landscape. It explores several approaches to achieve recovery and analyses the potential for the sector to transition towards a future characterised by sustainability and resilience. The tourism industry has been significantly affected by consecutive pandemics, with the most recent COVID-19 pandemic resulting in a condition of uncertainty and ongoing transformative changes.⁶⁰⁵ The initiatives outlined include a systematic approach that emphasises the implementation of health and safety norms, utilisation of digital advances and fostering cooperation between the public and private sectors. These measures aim to restore confidence and generate economic activity within the tourism domain.⁶⁰⁶

The consequences of these pandemics have led governments, business stakeholders and individuals who travel to re-evaluate their goals and expectations.⁶⁰⁷ The prioritisation of well-being has led to a heightened emphasis on health and safety, as travellers now actively seek places and businesses that address these concerns.⁶⁰⁸ Governments are placing emphasis on the development and execution of comprehensive health standards in order to guarantee the protection of both tourists and residents.⁶⁰⁹

⁶⁰⁴ M.K. Rahman *et al.*, 'Effect of Covid-19 pandemic on tourist travel risk and management perceptions', *Plos one* 16(9), 2021, p. e0256486.

⁶⁰⁵ C.M. Hall & S. Seyfi, '14 COVID-19 pandemic, tourism and degrowth', *Degrowth and tourism: New perspectives on tourism entrepreneurship, destinations and policy*, 2020, p. 220.

⁶⁰⁶ M. Giaoutzi & P. Nijkamp, *Tourism and regional development: New pathways*. pp 58-69.

⁶⁰⁷ A.C.I.D. Karunaratne *et al.*, 'Impact of the COVID-19 pandemic on tourism operations and resilience: stakeholders' perspective in Sri Lanka', *Worldwide Hospitality and Tourism Themes* 13(3), 2021, pp. 369-382.

⁶⁰⁸ N. Donthu & A. Gustafsson, 'Effects of COVID-19 on business and research', *Journal of business research* 117, 2020, pp. 284-289.

⁶⁰⁹ V. Zaitseva *et al.*, 'Medical formalities in protecting the rights of consumers to receive safe tourist service in the conditions of COVID-19', *National health as determinant of sustainable development of society*, 2021, p. 615.

The process of recovering from a pandemic requires a well-designed and systematically implemented method. The primary emphasis has been placed on local tourism due to the ongoing presence of travel restrictions and concerns surrounding international or overseas travel.⁶¹⁰ Governments actively promoted domestic tourism, urging individuals to engage in the exploration of their own countries, while concurrently providing assistance to local enterprises and tourist destinations.⁶¹¹ This method not only facilitates economic growth, but also fosters a sense of assurance among those who engage in travel activities.

General crisis and catastrophe management theories, models and frameworks have been devised to address the situation.⁶¹² These are prescriptive, descriptive or both. Prescriptive models provide guidelines for handling a crisis, whereas descriptive models show how it was managed.⁶¹³ In a developing nation, such management methods are developed and executed within a political, cultural and social environment.⁶¹⁴ Several tourism conceptual frameworks help destinations and enterprises manage crises at different phases. As mentioned, Ritchie developed a prescriptive approach that includes a “Crisis and Disaster Management strategic and holistic Framework” (CDMF).⁶¹⁵ His paradigm illustrated in Figure 8 takes a look at the six stages of a disaster, including pre-

⁶¹⁰ United Nations World Tourism Organisation, 2022., <<https://www.unwto.org/tourism-data/covid-19-measures-to-support-travel-tourism>>, accessed: 29 October 2023; Organisation for Economic Co-operation and Development, 2023., <<https://www.oecd.org/coronavirus/policy-responses/tourism-policy-responses-to-the-coronavirus-covid-19-6466aa20/>>, accessed: 29 October 2023.

⁶¹¹ J.M. Rogerson *et al.*, ‘Covid-19 and local business responses: Evidence from South Africa’s most tourism-dependent locality’, *African Journal of Hospitality, Tourism and Leisure* 10(1), 2021, pp. 388-405.

⁶¹² B. Beach *et al.*, ‘The 1918 influenza pandemic and its lessons for COVID-19’, *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

⁶¹³ A. Lepp & H. Gibson, ‘Tourist roles, perceived risk and international tourism’, *Annals of Tourism Research* 30(3), 2003, pp. 606–624; Y. Reisinger & F. Mavondo, ‘Travel anxiety and intentions to travel internationally: Implications of travel risk perception’, *Journal of Travel Research* 43, 2005, pp. 212–225; T. Taylor & K. Toohey, ‘Perceptions of terrorism threats at the 2004 olympic games: Implications for sporting events’, *Journal of Sports Tourism* 12(2), 2007, pp. 99–114; A. Williams & V. Baláz, ‘Tourism, risk tolerance and competences: Travel organization and tourism hazards’, *Tourism Management* 35, 2013, pp. 209–221; E. Yang & V. Nair, ‘Tourism at risk: A review of risk and perceived risk in tourism’, *Asia-Pacific Journal of Innovation in Hospitality and Tourism* 3(2), 2014, pp. 239–259; A. Paraskevas & B. Arendell, ‘A strategic framework for terrorism prevention and mitigation in tourism destinations’, *Tourism Management* 28, 2007, pp. 1560–1573.

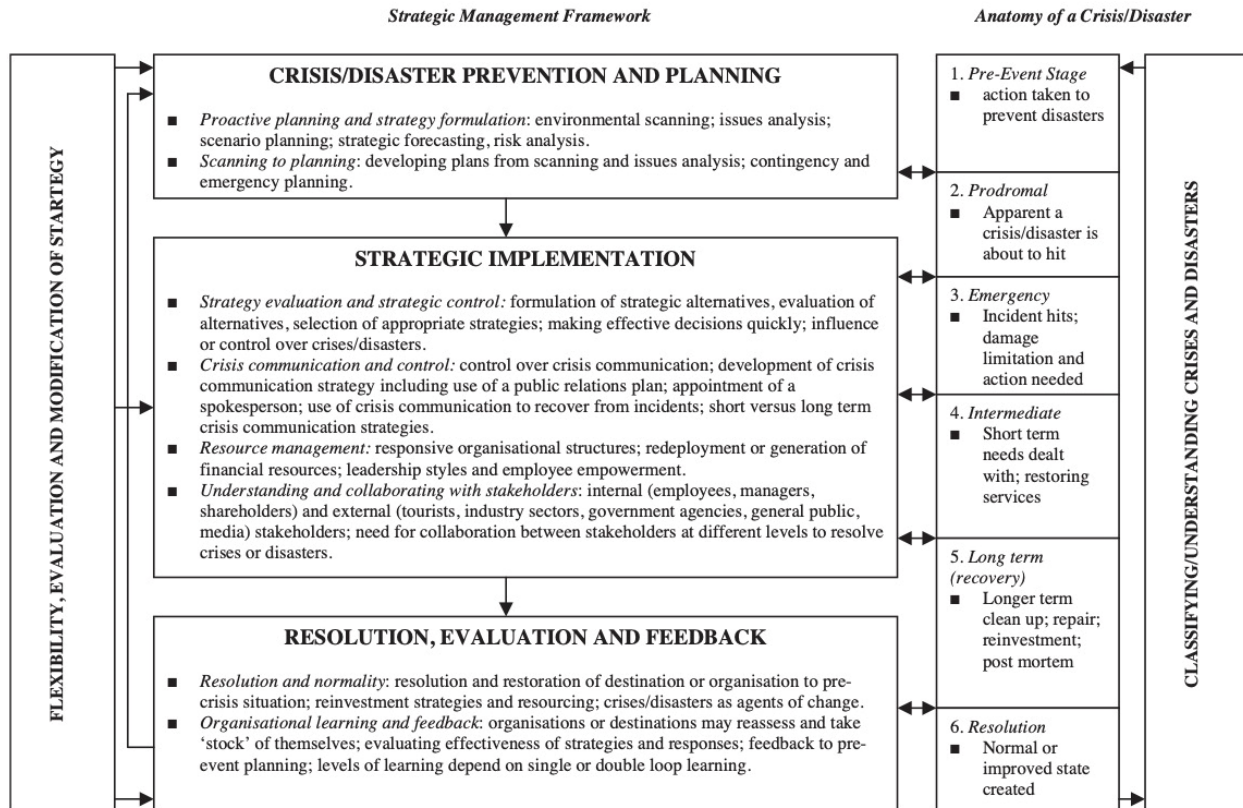
⁶¹⁴ B. Prideaux *et al.*, ‘Events in Indonesia: Exploring the limits to formal tourism trends forecasting methods in complex crisis situations’, *Tourism Management* 24(4), 2003, pp. 475–487.

⁶¹⁵ B.W. Ritchie, ‘Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry’, *Tourism management* 25(6), 2004, pp. 669-683.

crisis preparation, crisis response and recovery, and resolution and future learning. He then comes up with three main steps to approach any disaster. Step one being the planning phase; step two being the response phase; and the final step being the evaluation and feedback stage. Ritchie's framework is flexible and has feedback loops, acknowledging that differing crises need different methods according to their effect, strategy and recovery time. His approach looks at taking action to prevent a disaster, but if evidence of an approaching disaster does arise then he looks at what steps and procedures should be put in place to limit the damage caused. Once the disaster hits and the pandemic has occurred, he indicates what steps should be in place to work with stakeholders to resolve this disaster. Reflection is the last stage of this plan where destinations need to reassess their responses and plan to prevent subsequent outbreaks.⁶¹⁶

⁶¹⁶ B.W. Ritchie, 'Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry', *Tourism management* 25(6), 2004, p. 674.

Figure 8: Ritchie’s ‘Crisis and Disaster Management’: a strategic and holistic framework.⁶¹⁷



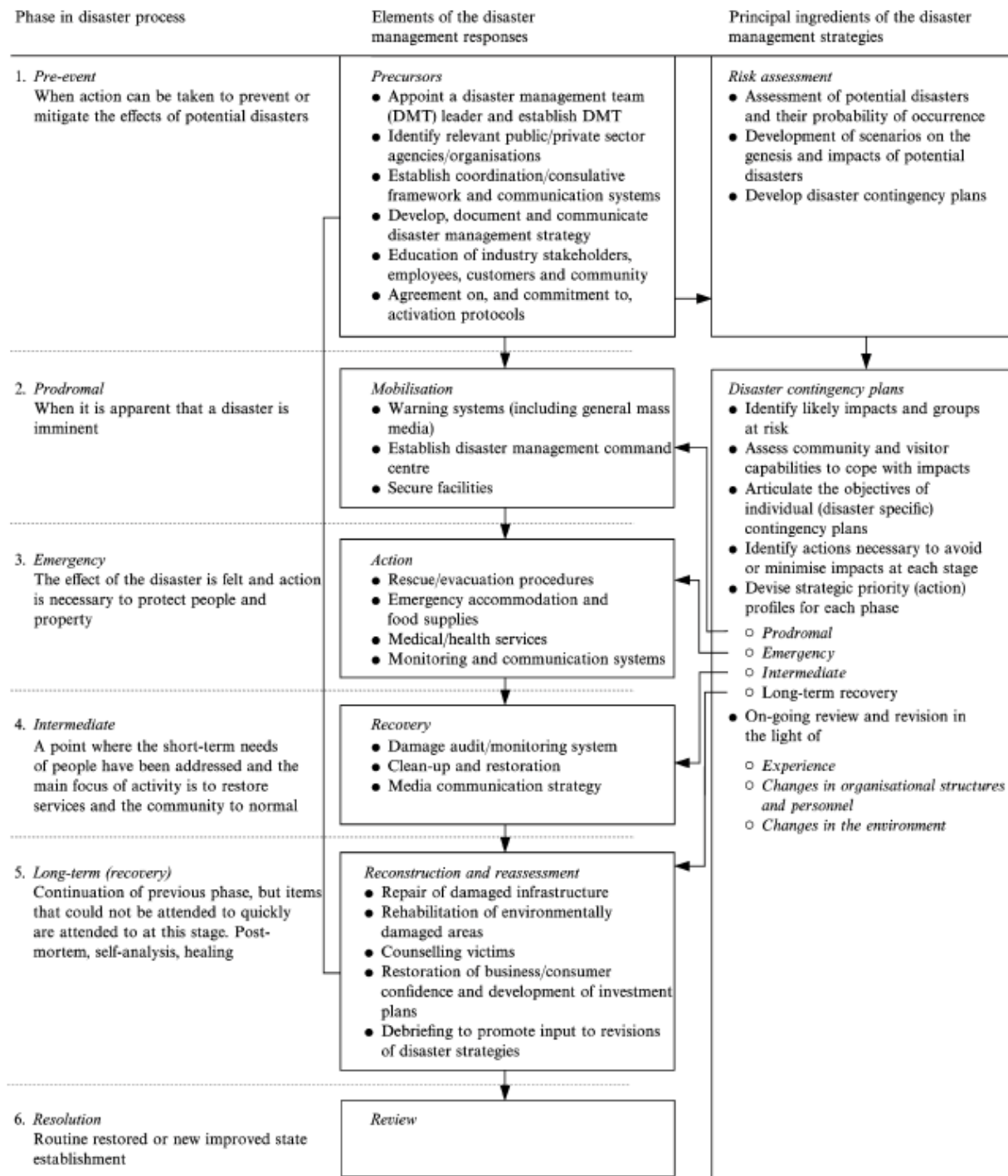
B. Faulkner’s “Tourism Disaster Management Framework” (TDMF) (Figure 9) has many similarities to Ritchie’s.⁶¹⁸ Ritchie’s concept applies to crises and disasters, whereas Faulkner’s model is for tourist disaster management alone.⁶¹⁹ Just like Ritchie, Faulkner takes the six phases of a disaster and breaks up responses to these phases. Instead of Ritchie’s three stages, Faulkner advises that there be six stages in the management responses. He proceeds to list out “principal ingredients” needed for a disaster management strategy, which could work as countries have to develop a pandemic readiness plan, they could essentially tick off if they have included each step in their plan.

⁶¹⁷ B.W. Ritchie, ‘Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry’, *Tourism management* 25(6), 2004, p. 674.

⁶¹⁸ B. Faulkner, ‘Towards a framework for tourism disaster management’, *Tourism Management* 22, 2001, pp. 135-147.

⁶¹⁹ M. Novelli *et al.*, ‘No Ebola... still doomed—The Ebola-induced tourism crisis’, *Annals of Tourism Research* 70, 2018, pp. 76-87.

Figure 9: Faulkners' Tourism Disaster Management Framework.⁶²⁰



⁶²⁰ B. Faulkner, 'Towards a framework for tourism disaster management', *Tourism Management* 22, 2001, pp. 135-147.

The models of both Ritchie and Faulkner offer similar approaches to address the preparation, endurance and resolution of crisis.

5.1 The Post-Pandemic Landscape: Pathways to Recovery

In order to restore trust and confidence, the tourist sector is instituting rigorous health and safety standards.⁶²¹ In addition to mitigating physical touch and decreasing the likelihood of disease transmission, establishments are increasingly embracing contactless technology and digital solutions.⁶²² In particular, the COVID-19 reaction project has expedited the integration of digital technology into the tourist sector.⁶²³ The use of technology to augment the travel experience and uphold safety is shown by various measures such as contactless check-ins at airports, digital health passports and virtual tours.⁶²⁴ Digital platforms are being used as a means to provide precise and current information to those who are travelling, so empowering them to make well-informed choices.⁶²⁵

The process of recuperating from the pandemic requires a concerted endeavour including both the public and private sectors.⁶²⁶ Governments are engaging in close collaboration with industry stakeholders to formulate strategies for recovery, provide financial assistance and streamline the adoption of health measures.⁶²⁷ Public-private partnerships are being established with the aim of advancing destinations, fostering the

⁶²¹ A. Spencer & P. Tarlow, 'Pandemics and tourism safety', in *Tourism safety and security for the Caribbean*, pp. 85-94.

⁶²² S.G. Pillai *et al.*, 'COVID-19 and hospitality 5.0: Redefining hospitality operations', *International Journal of Hospitality Management* 94, 2021, p. 102869.

⁶²³ Q. Wang *et al.*, 'Integrating digital technologies and public health to fight Covid-19 pandemic: key technologies, applications, challenges and outlook of digital healthcare', *International Journal of Environmental Research and Public Health* 18(11), 2021, p. 6053.

⁶²⁴ S. Almeida *et al.*, 'Smart Hospitality: Goodbye Virus!', in *Technology, Business, Innovation, and Entrepreneurship in Industry 4.0*, pp. 205-220.

⁶²⁵ D. Răzvan & G. Sabou, 'Influence of social media in choice of touristic destination', *Cactus Tourism Journal* 3(2), 2012, pp. 24-30.

⁶²⁶ C.M. Hall *et al.*, 'Pandemics, transformations and tourism: Be Careful what you wish for', in *Global Tourism and COVID-19*, pp. 123-144.

⁶²⁷ A. Orîndaru *et al.*, 'Tourism in a post-COVID-19 era: Sustainable strategies for industry's recovery', *Sustainability* 13(12), 2021, p. 6781.

adoption of sustainable tourism practises and generating inventive approaches to address the difficulties arising as a result of the pandemic.⁶²⁸

Global pandemics have underscored the significance of resilience and adaptation when confronted with unanticipated obstacles. In forthcoming times, sustainable tourism will place emphasis on the establishment of resilience in the face of various crises, including but not limited to pandemics, natural catastrophes and climate change. The potential strategies include broadening the range of tourist offerings, allocating resources towards developing resilient infrastructures capable of withstanding shocks and adopting comprehensive health and safety regulations.⁶²⁹

The tourism industry is confronted with a range of obstacles and possibilities in the aftermath of this and previous pandemics. Through the implementation of a sequential strategy, with a focus on the preservation of health and safety, the incorporation of technological advancements and the cultivation of cooperative partnerships, the industry may effectively traverse the journey towards recuperation.⁶³⁰ The future of tourism will be significantly influenced by the processes of trust restoration, demand stimulation, and adaptation to the changing expectations of travellers.⁶³¹

5.2 Sustainable Tourism as a Cornerstone of Recovery

The significance of sustainability within the tourism sector has been an integral component of modern tourism, but in recent times has grown more apparent. The recognition of environmental consequences and the increasing need for significant travel encounters have given rise to the prominence of sustainable tourism practises as a

⁶²⁸ D. Gibson, 'Community-based tourism in Fiji: A case study of Wayalilai Ecohaven Resort, Yasawa Island Group', in S. Pratt & D. Harrison, *Tourism in Pacific Islands: Current issues and future challenges*, pp. 118-132.

⁶²⁹ F.M. Burkle, 'Global health security demands a strong international health regulations treaty and leadership from a highly resourced World Health Organization', *Disaster medicine and public health preparedness* 9(5), 2015, pp. 568-580.

⁶³⁰ Robina-Ramírez, R., Sánchez, M.S.O., Jiménez-Naranjo, H.V. and Castro-Serrano, J., 2021. Tourism governance during the COVID-19 pandemic crisis: A proposal for a sustainable model to restore the tourism industry. *Environment, Development and Sustainability*, pp. 1-22.

⁶³¹ W. Aschauer & R. Egger, 'Transformations in tourism following COVID-19? A longitudinal study on the perceptions of tourists', *Journal of Tourism Futures*, 2023, pp. 1-23.

fundamental aspect of recuperation as well as future prospects.⁶³² This section aims to examine the importance of sustainable tourism, including ecotourism, responsible travel and community participation, in mitigating adverse effects, fostering local economies and safeguarding cultural heritage.⁶³³ The popularity of sustainability has increased due to a heightened awareness of environmental concerns and a rising demand for meaningful travel experiences.⁶³⁴ Sustainable tourism practises including ecotourism, responsible travel and community participation has the capacity to not alone mitigate adverse consequences, but also foster local economies and safeguard cultural heritage.⁶³⁵

The primary objective of sustainable tourism is thus to mitigate the adverse effects caused by tourist activities by the promotion and adoption of responsible practises, including but not limited to energy efficiency, waste reduction and conservation initiatives.⁶³⁶ If another pandemic were to start, the tourism industry would need to easily adapt to pandemic responses and destinations may effectively reduce their tourism practices, but still remain profitable.⁶³⁷ Sustainable tourism acknowledges the significance of engaging local populations in the decision-making procedures and guaranteeing their advantageous participation in tourist operations.⁶³⁸ Community involvement projects include many strategies such as capacity development, training programmes and the establishment of

⁶³² Global Sustainable Tourism Council (GSTC), 20 April 2023., 'Regenerative and sustainable tourism in the Willamette Valley', <<https://www.gstccouncil.org/regenerative-and-sustainable-tourism-in-the-willamette-valley/>>, accessed: 19 July 2023.

⁶³³ Global Sustainable Tourism Council (GSTC), 20 April 2023., 'Regenerative and sustainable tourism in the Willamette Valley', <<https://www.gstccouncil.org/regenerative-and-sustainable-tourism-in-the-willamette-valley/>>, accessed: 19 July 2023.

⁶³⁴ Organisation for Economic Co-operation and Development (OECD), 2021., 'Building Back Better: A Sustainable, Resilient Recovery after COVID-19', <<https://www.oecd.org/coronavirus/en/>>, accessed: 21 August 2023.

⁶³⁵ D.M. El Moslem Badr, 'Challenges and Future of the development of sustainable ecotourism', *International Journal of Modern Agriculture and Environment* 2(2), 2022, pp. 54-72.

⁶³⁶ H.L. Sin & C. Minca, 'Touring responsibility: The trouble with 'going local' in community-based tourism in Thailand', *Geoforum* 51, 2014, pp. 96-106.

⁶³⁷ Organisation for Economic Co-operation and Development (OECD), 2021., 'Building Back Better: A Sustainable, Resilient Recovery after COVID-19', <<https://www.oecd.org/coronavirus/en/>>, accessed: 21 August 2023; H.M. Donohoe & R.D. Needham, 'Ecotourism: The evolving contemporary definition', *Journal of Ecotourism* 5(3), 2006, pp. 192-210.

⁶³⁸ T. Mihalic, 'Sustainable-responsible tourism discourse—Towards 'responsustainable' tourism', *Journal of cleaner production* 111, 2016, pp.461-470.

income-generating possibilities.⁶³⁹ Through the provision of agency to local communities, sustainable tourism serves to not only augment their standard of living, but also cultivate a profound feeling of ownership and admiration for their cultural heritage. This ownership will help communities prepare more efficiently for possible pandemics.⁶⁴⁰

The implementation of sustainable tourism practises has the potential to make a substantial contribution to the economy of local communities, which could help them recover from past pandemics which have left them with a reduced GDP.⁶⁴¹ Sustainable tourism has the potential to foster economic development in host communities via the promotion of local companies, support for small-scale firms and the creation of job opportunities.⁶⁴² Economic diversity serves to mitigate reliance on one sector and bolster the adaptability of regional economies, especially during times of adversity.⁶⁴³

Another niche that has evolved in the context of sustainable tourism is ecotourism that may be defined as a kind of tourism that prioritises the exploration of natural landscapes, with a simultaneous commitment to environmental preservation and the enhancement of local community welfare. After multiple lock downs and travel restrictions that continued for years, many tourists have been showing a preference for spa and wellness tourism as well as ecotourism. Ecotourism serves as a means to provide guests unique and immersive experiences, while concurrently creating economic prospects for indigenous people. This, in turn, cultivates a feeling of responsibility and care towards the natural environment.⁶⁴⁴

⁶³⁹ E. Bowitz & K. Ibenholt, 'Economic impacts of cultural heritage—Research and perspectives', *Journal of cultural heritage* 10(1), 2008 pp. 1-8.

⁶⁴⁰ S.S. Imon, 'Cultural heritage management under tourism pressure', *Worldwide Hospitality and Tourism Themes* 9(3), 2017, pp. 335-348.

⁶⁴¹ T. Mihalic, 'Sustainable-responsible tourism discourse—Towards 'responsustainable' tourism', *Journal of cleaner production* 111, 2016, pp. 461-470.

⁶⁴² E. Bowitz & K. Ibenholt, 'Economic impacts of cultural heritage—Research and perspectives', *Journal of cultural heritage* 10(1), 2008 pp. 1-8.

⁶⁴³ S.S. Imon, 'Cultural heritage management under tourism pressure', *Worldwide Hospitality and Tourism Themes* 9(3), 2017, pp. 335-348.

⁶⁴⁴ J.M. Beall *et al.*, 'What drives ecotourism: environmental values or symbolic conspicuous consumption?', *Journal of Sustainable Tourism* 29(8), 2021, pp. 1215-1234; H. Han, 'Consumer behavior and environmental sustainability in tourism and hospitality: A review of theories, concepts, and latest research' *Journal of Sustainable Tourism* 29(7), 2021, pp. 1021-1042.

Following the global pandemic, it is anticipated that those engaging in travel will place a greater emphasis on adopting responsible and sustainable travel behaviours as well as ecotourism. This includes the provision of assistance to local communities, the preservation and appreciation of cultural assets, as well as the mitigation of adverse effects on the environment. The Global Sustainable Tourism Council (GSTC) offers guidelines and certification programmes to assist destinations and enterprises in implementing sustainable practises.⁶⁴⁵ A notable trend that is anticipated to arise is a transition towards tourism that is focused on local communities and natural environments both of which align with responsible and sustainable tourism. This is resulting from the fact that many individuals were stuck inside their apartments during the pandemics and ‘dreaming of travel’ was their only escape.⁶⁴⁶ Tourists will be inclined to choose sites that provide expansive areas, picturesque landscapes and prospects for engaging in outdoor pursuits.⁶⁴⁷

Sustainable tourism plays a crucial role in the revitalization and enduring prosperity of the tourism sector.⁶⁴⁸ Destinations may effectively mitigate adverse environmental effects, safeguard cultural heritage and bolster local economies by implementing strategies such as ecotourism, responsible travel and community participation, all of which contribute to sustainable tourism. By implementing sustainable touristic practises, the tourism industry has the potential to serve as a catalyst for positive transformation, offering significant travel experiences to tourists who have been longing for a change of scenery while simultaneously ensuring the preservation of the earth for forthcoming generations.⁶⁴⁹

⁶⁴⁵ A. Budeanu, ‘Sustainable tourist behaviour—a discussion of opportunities for change’, *International journal of consumer studies* 31(5), 2007, pp. 499-508.

⁶⁴⁶ S. Baumeister, ‘Replacing short-haul flights with land-based transportation modes to reduce greenhouse gas emissions: The case of Finland’, *Journal of Cleaner Production* 225, 2019, pp. 262-269.

⁶⁴⁷ L. Tyrväinen *et al.*, ‘Towards sustainable growth in nature-based tourism destinations: Clients’ views of land use options in Finnish Lapland’, *Landscape and Urban Planning* 122, 2014, pp. 1-15.

⁶⁴⁸ A. Torres-Delgado & F.L. Palomeque, ‘The growth and spread of the concept of sustainable tourism: The contribution of institutional initiatives to tourism policy’, *Tourism Management Perspectives* 4, 2012, pp. 1-10.

⁶⁴⁹ N. Hassanli & J. Ashwell, ‘The contribution of small accommodations to a sustainable tourism industry’, *Current Issues in Tourism* 23(3), 2020, pp. 261-264.

5.3 Technological Advancements: Pioneering the Future

The tourism industry has always been influenced by technology, but has seen more significant changes in recent years, mostly influenced by developments in hi-tech.⁶⁵⁰ This section examines the many methods via which technology is transforming the tourist industry, including contactless services, virtual reality encounters and data-driven analyses. As indicated above, some of these were specifically introduced during the closures caused by the pandemics. These improvements not only enhance the experiences of tourists, but also optimise operational processes and provide the monitoring of environmental and social repercussions in real-time.⁶⁵¹ With tourists still being hesitant to travel during a post-pandemic time the advent of digital transformation has emerged as a significant driver of transformation within the tourism sector, with the hope of making tourists more comfortable with travel again.⁶⁵² The transformation of traveller engagement with places is being influenced by the abovementioned contactless services, virtual reality experiences and data-driven insights.⁶⁵³ The use of technology has the potential to augment visitor experiences, optimise operational processes and facilitate the monitoring of environmental and social consequences in real-time, while simultaneously upholding better hygiene practices and safer distances between tourists.⁶⁵⁴

The advent of mobile devices and digital platforms has facilitated the accessibility of many services for tourists, eliminating the need for direct physical interaction.⁶⁵⁵ These include contactless check-in procedures, digital payment options, and virtual concierge services. Contactless services provide increased convenience, efficiency and safety for both

⁶⁵⁰ D. van den Berg, 'Searching for sustainability: Tourism 4.0 on the sunny side of the Alps', Masters' dissertation, University of Pretoria, 2021.

⁶⁵¹ D.M. Stipanuk, 'Tourism and technology: interactions and implications', *Tourism Management* 14(4), 1993, pp. 267-278.

⁶⁵² D.M. Stipanuk, 'Tourism and technology: interactions and implications', *Tourism Management* 14(4), 1993, pp. 267-278.

⁶⁵³ V. Verkerk, 'Virtual tourism: The new frontier or the end of the journey?', PhD thesis, University of Pretoria, 2021.

⁶⁵⁴ World Economic Forum, 20 October 2020., 'The Future of Jobs Report 2020', <<https://www.weforum.org/publications/the-future-of-jobs-report-2020>>, accessed: 21 August 2023.

⁶⁵⁵ D. Buhalis *et al.*, 'Technological disruptions in services: lessons from tourism and hospitality'. *Journal of Service Management* 30(4), 2019, pp. 484-506.

travellers and service providers by removing the need for physical encounters which obviates the spread of diseases.⁶⁵⁶

Virtual reality (VR) has become a prominent tool within the tourism sector, providing individuals with realistic encounters that simulate travel trips to various locations, all from the comfort of their own homes, which had been especially welcoming as people spent a significant amount of time not being able to travel.⁶⁵⁷ VR technology enables individuals to engage in immersive experiences that allow them to virtually visit renowned landmarks, culturally significant places and awe-inspiring natural phenomena from the comfort of their homes.⁶⁵⁸ This affords them the opportunity to get a preliminary understanding of the many offerings and highlights of a particular destination. This technology not only improves pre-trip preparation, but also functions as a promotional instrument for places, motivating prospective tourists to engage in authentic experiences, tourists could then travel to these places with a better understanding of their importance.⁶⁵⁹

The advent of copious data has also brought about a paradigm shift in decision-making within the tourism sector. Through the use of data analytics and artificial intelligence, enterprises have the ability to get significant and important information pertaining to the preferences of travellers, their behavioural patterns, as well as prevailing market trends.⁶⁶⁰ This facilitates the implementation of personalised marketing campaigns, targeted promotions and customised experiences for specific travellers. Governments and other tourism stakeholders can use this information to strategically advertise their packages to tourists that would be more receptive to their destination. This can also help

⁶⁵⁶ UNWTO, 4 October 2019., 'Ebrd And UNWTO Team Up To Promote Inclusive Tourism And Achieve Sustainable Development Goals', <<https://www.unwto.org/ebd-and-unwto-team-promote-inclusive-tourism-and-achieve-sustainable-devel>>, accessed: 19 July 2023.

⁶⁵⁷ V. Verkerk, 'Virtual tourism: The new frontier or the end of the journey?', PhD thesis, University of Pretoria, 2021: J.S. Perry Hobson & A.P. Williams, 'Virtual reality: A new horizon for the tourism industry', *Journal of vacation marketing* 1(2), 1995, pp. 124-135.

⁶⁵⁸ V. Verkerk, 'Virtual tourism: The new frontier or the end of the journey?', PhD thesis, University of Pretoria, 2021.

⁶⁵⁹ A.K. Pandey *et al.*, 'Recent advances in solar photovoltaic systems for emerging trends and advanced applications', *Renewable and Sustainable Energy Reviews* 53, 2016, pp.859-884.

⁶⁶⁰ J. Bowen & E. Whalen, 'Trends that are changing travel and tourism', *Worldwide Hospitality and Tourism Themes* 9(6), 2017, pp. 592-602.

governments and stakeholders figure out how to advertise the safety of their destination to potential travellers.⁶⁶¹

The advent of technological developments has presented novel opportunities for augmenting visitor experiences. Augmented Reality (AR) has the capability to superimpose digital content onto the real-world environment, therefore offering engaging and instructive encounters for those engaged in travel activities.⁶⁶² Mobile apps and smart devices provide the provision of personalised suggestions, navigation aid and real-time information pertaining to attractions and events. These technologies provide travellers with the means to optimise their journeys, guaranteeing noteworthy and satisfying encounters.⁶⁶³

In the current fourth industrial revolution climate, the use of technology is of paramount importance in optimising and enhancing operational processes within the tourism sector. It also plays a vital role in the recovery of the economy after the tourism industry stood at a standstill for a prolonged period of time during each pandemic. The use of technology in many aspects of corporate operations, such as online booking systems, automatic check-ins, digital inventory management and resource optimisation, facilitates enhanced efficiency and effectiveness.⁶⁶⁴ This not only leads to cost reduction, but also enhances client satisfaction via the minimization of wait times and improvement of service quality.⁶⁶⁵ Furthermore, technology plays a crucial role in enabling efficient and uninterrupted

⁶⁶¹ United Nations Environment Programme (UNEP), 18 February 2021., 'Making Peace with Nature: A Scientific Blueprint to Tackle the Climate, Biodiversity and Pollution Emergencies', <<https://www.unep.org/resources/making-peace-nature>>, accessed: 21 August 2023.

⁶⁶² D. van den Berg, 'Searching for sustainability: Tourism 4.0 on the sunny side of the Alps', Masters' thesis, University of Pretoria, 2021.

⁶⁶³ I.A. Alimi *et al.*, 'Towards enhanced mobile broadband communications: A tutorial on enabling technologies, design considerations, and prospects of 5G and beyond fixed wireless access networks', *Applied Sciences* 11(21), 2021, p. 10427.

⁶⁶⁴ S. Bharwani & D. Mathews, 'Post-pandemic pressures to pivot: tech transformations in luxury hotels', *Worldwide Hospitality and Tourism Themes* 13(5), 2021, pp. 569-583.

⁶⁶⁵ E. Gurgu *et al.*, 'The Relationship Between Big Data Driven Technologies and Performance Management Strategies Applied to Companies in the Hospitality, Tourism & Travel Industry', *Annals of Spiru Haret University. Economic Series* 21(4), 2021, pp. 97-136.

communication and cooperation among diverse stakeholders, hence promoting a more cohesive and linked tourist environment.⁶⁶⁶

Pandemics have expedited the integration of technology across several industries, including the field of sustainable tourism.⁶⁶⁷ It is anticipated that there would be a rise in the utilisation of digital platforms for the purpose of reserving lodgings, obtaining information pertaining to sustainable practises and endorsing activities that are environmentally friendly. The use of technology will be of utmost importance in the monitoring and management of visitor flows, with the aim of mitigating congestion and reducing the adverse effects on the environment.⁶⁶⁸ There is no doubt among scholars and practitioners that the future of tourism will be significantly influenced by technological advancements. The use of artificial intelligence, data analytics and blockchain has the potential to optimise resource management, mitigate waste and improve the overall sustainability of destinations. The UNWTO supports and provides valuable insights and case studies about the use of technology for the promotion of sustainable tourism.⁶⁶⁹

5.4 Collaborative Partnerships: Building Resilience

The tourism sector is a multifaceted and highly interdependent system that significantly depends on the cooperation, coordination and communication of several stakeholders. The industry's future is significantly influenced by several stakeholders, including governments, commercial sector companies, NGOs and locals.⁶⁷⁰ This section delves into the importance of collaborative relationships in fostering resilience within the tourism industry. The statement underscores the collective accountability in the management of

⁶⁶⁶ D. Cyranoski, 'CRISPR-baby scientist fails to satisfy critics', *Nature* 570(7761), 2019, pp. 154-155; J. Preskill, 'Quantum Computing in the NISQ era and beyond', *Quantum* 2, 2018, p. 79.

⁶⁶⁷ Z. Li *et al.*, 'Tourists' health risk threats amid COVID-19 era: role of technology innovation, Transformation, and recovery implications for sustainable tourism', *Frontiers in Psychology* 12, 2022, p. 769175.

⁶⁶⁸ M. Zubiaga *et al.*, 'Towards smarter management of overtourism in historic centres through visitor-flow monitoring', *Sustainability* 11(24), 2019, p. 2910.

⁶⁶⁹ Y. Perdomo, 'Key issues for tourism development—the AM-UNWTO contribution', *Worldwide hospitality and tourism themes* 8(6), 2016, pp. 625-632.

⁶⁷⁰ J.M. Cheer & A.A. Lew, 'Sustainable tourism development: Towards resilience in tourism', *Interaction* 45(1), 2017, pp. 10-15.

crises, formulation of policies and distribution of resources, placing emphasis on the need of a cohesive approach to address worldwide concerns.⁶⁷¹

During periods of turmoil, such as occurrences of pandemics, or political unrest, the tourism sector relies heavily on collaborative alliances to ensure its endurance and recuperation. It is essential for governments, business sector firms, NGOs and local communities to collaborate in order to formulate efficient crisis management methods.⁶⁷² This entails the dissemination of information, the facilitation of collaboration, and the execution of strategies to guarantee the security and welfare of both visitors and local residents. Through the consolidation of resources and the use of collective experience, collaborative partnerships have the potential to augment the resilience of the sector while simultaneously mitigating the adverse consequences of crises.⁶⁷³

Collaborative partnerships are essential in the formulation of policies pertaining to sustainable tourism. It is essential for governments, commercial sector organisations, NGOs and local communities to engage in collaborative efforts aimed at formulating and executing policies that foster responsible and sustainable tourism practises.⁶⁷⁴ These programmes include efforts to safeguard both natural and cultural assets, provide assistance to local economies and mitigate the environmental impact of tourist operations. Through collaborative efforts, these many stakeholders have the ability to establish a favourable policy framework that effectively harmonises economic advancement with social and environmental factors.⁶⁷⁵

⁶⁷¹ R. Bouwen & T. Taillieu, 'Multi-party collaboration as social learning for interdependence: Developing relational knowing for sustainable natural resource management', *Journal of community & applied social psychology* 14(3), 2004, pp. 137-153.

⁶⁷² M. Novelli, 'Building tourism ecosystems for sector sustainability and resilience through peer-to-peer collaboration and open innovation', *Current Issues in Tourism*, 2023, pp. 1-5.

⁶⁷³ M. Kumaraswamy *et al.*, 'Reinforcing relationships for resilience—by embedding end-user 'people' in public–private partnerships', *Civil Engineering and Environmental Systems* 32(1-2), 2015, pp. 119-129.

⁶⁷⁴ United Nations World Tourism Organisation (UNWTO), January 2018, 'Tourism and the Sustainable Development Goals – Journey to 2030', <<https://www.e-unwto.org/doi/epdf/10.18111/9789284419401>>, accessed: 19 July 2023.

⁶⁷⁵ A. Wanner *et al.*, 'Policies related to sustainable tourism—An assessment and comparison of European policies, frameworks and plans', *Journal of Outdoor Recreation and Tourism* 29, 2020, p. 100275.

The distribution of resources plays a crucial role in enhancing the resilience of the tourism business. Collaborative partnerships facilitate the consolidation of resources and skills among stakeholders in order to collectively tackle shared difficulties.⁶⁷⁶ Through the act of sharing resources and expertise, collaborative partnerships have the potential to augment the industry's capacity to effectively respond to changing conditions and cultivate resilience at both the individual and community levels.⁶⁷⁷

In light of the current global challenges, there is a growing consensus among scholars and policymakers on the need for a unified response. These challenges, which transcend national boundaries and affect all aspects of human life, need a collective effort to address them effectively. The tourist sector is susceptible to several global concerns, including but not limited to climate change, economic swings, geopolitical conflicts, as well as pandemics. The establishment of collaborative relationships is crucial in order to foster a cohesive and coordinated approach towards addressing these difficulties.⁶⁷⁸ Collaboration among governments, commercial sector organisations, NGOs and local communities facilitates the dissemination of optimal strategies, fosters the sharing of knowledge and enables the synchronisation of endeavours aimed at alleviating the adverse consequences associated with global difficulties. In sum, the adoption of a collaborative strategy in the tourism sector enables enhanced resilience and sustainability, aiding it to effectively resist and adapt to the dynamic and evolving global terrain.⁶⁷⁹

In order to attain the objectives of sustainable tourism, the establishment of collaborative efforts and partnerships is of utmost importance. Collaborative efforts among governments, tourism organisations, enterprises and local communities are crucial for the

⁶⁷⁶ M. Grant, 'Innovation in tourism planning processes: Action learning to support a coalition of stakeholders for sustainability', *Tourism and Hospitality Planning & Development* 1(3), 2004, pp. 219-237.

⁶⁷⁷ United Nations Global Compact (UNGC), 2023., 'UN Global Compact Strategy 2021-2023', <<https://unglobalcompact.org/what-is-gc/strategy>>, accessed: 21 August 2023.

⁶⁷⁸ United Nations World Tourism Organisation (UNWTO), September 2020., 'UNWTO Recommendations on Tourism and Rural Development – A Guide to Making Tourism an Effective Tool for Rural Development', <<https://www.e-unwto.org/doi/epdf/10.18111/9789284422173>>, accessed: 19 July 2023.

⁶⁷⁹ D, Freshwater *et al.*, 'International research collaboration: Issues, benefits and challenges of the global network', *Journal of Research in Nursing* 11(4), 2006, pp. 295-303.

formulation and execution of sustainable tourism initiatives.⁶⁸⁰ The adoption of a collaborative strategy would effectively facilitate the equitable distribution of tourist advantages while simultaneously mitigating the adverse consequences associated with it.⁶⁸¹ The establishment of collaborative relationships also plays a pivotal role in fostering resilience within the tourism sector, which is needed if another pandemic were to hit. The establishment of strong connections and collaborations among governments, commercial sector organisations, NGOs and local communities is crucial in order to facilitate efficient crisis management, promote the development of sustainable policies, allocate resources effectively and foster a coordinated approach to addressing global concerns. Through the adoption of a collaborative approach and the assumption of collective responsibility, stakeholders have the capacity to cultivate a tourism sector that is both robust and sustainable, capable of flourishing even in the presence of challenging circumstances.⁶⁸²

5.5 Cultural Exchange and Local Empowerment: Authentic Tourism

The increasing desire for genuine and immersive experiences is shaping the direction of tourism towards more emphasis on local participation and cultural interaction.⁶⁸³ The promotion of active engagement of local communities in tourism development may have many positive outcomes, including the cultivation of a feeling of pride, the generation of money and the prevention of excessive commercialization.⁶⁸⁴ These outcomes, in turn, can facilitate more authentic connections between travellers and host communities.⁶⁸⁵ There is a growing trend among travellers to actively seek out possibilities for meaningful engagement with local communities and active participation in cultural exchange.⁶⁸⁶ This

⁶⁸⁰ R. Dodds, 'Sustainable tourism and policy implementation: Lessons from the case of Calvia, Spain', *Current Issues in Tourism* 10(4), 2007, pp. 296-322.

⁶⁸¹ H. Etzkowitz *et al.*, 'The Future of the University and the University of the Future: Evolution of Ivory Tower to Entrepreneurial Paradigm', *Research Policy* 29(2), 2000, pp. 313-330.

⁶⁸² United Nations Office for Disaster Risk Reduction (UNDRR), 7 May 2020., 'Making Cities Resilient 2030', <<https://mcr2030.undrr.org/>>, accessed: 21 August 2023.

⁶⁸³ M. Robinson, 'Collaboration and cultural consent: Refocusing sustainable tourism', *Journal of Sustainable Tourism* 7(3-4), 1999, pp. 379-397.

⁶⁸⁴ X. Zhuang *et al.*, 'Sociocultural impacts of tourism on residents of world cultural heritage sites in China', *Sustainability* 11(3), 2019, p. 840.

⁶⁸⁵ J.B. Ritchie & S. Hudson, 'Understanding and meeting the challenges of consumer/tourist experience research', *International journal of tourism research* 11(2), 2009, pp. 111-126.

⁶⁸⁶ P.L. Pearce, 'From culture shock and culture arrogance to culture exchange: Ideas towards sustainable socio-cultural tourism', *Journal of Sustainable Tourism* 3(3), 1995, pp. 143-154.

section considers the significance of enabling local communities to become active participants in the process of tourist development. Through this approach, the primary objective is to cultivate a feeling of self-esteem, produce financial resources, and mitigate excessive commercialization, and thereby facilitating more authentic engagements between tourists and local populations.⁶⁸⁷

The concept of empowering local communities has gained significant attention in recent years. This approach focuses on enhancing the capacity and agency of individuals and groups within a specific geographic area to actively.⁶⁸⁸ The process of empowering local communities within the tourist sector entails equipping them with the necessary tools, resources, and authority to actively engage in the planning and administration of tourism endeavours, as well as teaching them hygiene practices to keep themselves and the tourists safe during each visit.⁶⁸⁹ This approach acknowledges the significance of indigenous knowledge, customary practises, and cultural legacy, and strives to safeguard and advance them in a way that ensures long-term viability.⁶⁹⁰

When local communities are granted empowerment, they assume an active role in contributing to the tourist sector, as opposed to being passive beneficiaries. The phenomenon of empowerment may provide a multitude of beneficial consequences.⁶⁹¹ First and foremost, the promotion of a feeling of pride and ownership is facilitated among community people, as they assume pivotal roles in crafting their own tourism experiences.

⁶⁸⁷ M. Peters *et al.*, 'The resource-based and the market-based approaches to cultural tourism in alpine destinations', *Journal of Sustainable Tourism* 19(7), 2011, pp.877-893.

⁶⁸⁸ J. Pelenc *et al.*, 'Collective capability and collective agency for sustainability: A case study', *Ecological economics* 118, 2015, pp. 226-239.

⁶⁸⁹ Y. Li & C. Hunter, 'Community involvement for sustainable heritage tourism: a conceptual model', *Journal of Cultural Heritage Management and Sustainable Development* 5(3), 2015, pp. 248-262; S.F. McCool & K.E. Khumalo, 'Empowering managers: Enhancing the performance of protected area tourism managers in the twenty-first century', *Tourism Recreation Research* 40(2), 2015, pp. 169-180.

⁶⁹⁰ G. Richards & J. Wilson, 'Developing Creativity in Tourist Experiences: A Solution to the Serial Reproduction of Culture?', *Tourism Management* 27(6), 2006, pp. 1209–1223.

⁶⁹¹ C. Tosun, 'Limits to community participation in the tourism development process in developing countries', *Tourism management* 21(6), 2000, pp. 613-633.

The presence of a feeling of ownership among individuals might result in a heightened level of dedication towards the preservation and exhibition of their cultural heritage.⁶⁹²

Additionally, the empowerment of local communities' results in the generation of money and the creation of economic possibilities which were missed during the recent pandemics. This will aid in the recovery of the tourism industry and as a result the economy of the country.⁶⁹³ Communities may get economic benefits from tourism by engaging in active participation in tourism activities. The generated revenue has the potential to be allocated towards local infrastructure, education, healthcare, and other community development programmes, so resulting in a comprehensive enhancement of the overall well-being and standard of living for those within the community.⁶⁹⁴

Authentic tourism experiences are distinguished by actual engagements between tourists and local populations.⁶⁹⁵ Cultural interaction plays a crucial role in facilitating these genuine experiences. When local populations are granted authority and autonomy, there is a higher probability of their active involvement with travellers, whereby they impart their cultural customs, narratives, and manner of existence. This relationship transcends superficial engagements and enables travellers to get a more profound comprehension and admiration of the indigenous culture.⁶⁹⁶

In the aftermath of the pandemic, there has been an increased focus on including local populations into the decision-making processes pertaining to tourism.⁶⁹⁷ Promoting community engagement and facilitating their active involvement in sustainable tourism

⁶⁹² B.S. Grimwood *et al.*, 'Responsibility in tourism: A discursive analysis', *Annals of Tourism Research* 50, 2015, pp. 22-38.

⁶⁹³ A. Townsend *et al.*, 'I realised it weren't about spending the money. It's about doing something together: the role of money in a community empowerment initiative and the implications for health and wellbeing', *Social Science & Medicine* 260, 2020, p. 113176.

⁶⁹⁴ H. Ingram, 'Cultural tourism: the partnership between tourism and cultural heritage management', *International Journal of Contemporary Hospitality Management* 15(7), 2003, pp. 413-413.

⁶⁹⁵ D. Paulauskaite *et al.*, 'Living like a local: Authentic tourism experiences and the sharing economy', *International journal of tourism research* 19(6), 2017, pp. 619-628.

⁶⁹⁶ T. Jamal & A. Stronza, 'Collaboration Theory and Tourism Practice in Protected Areas: Stakeholders, Structuring, Sustainability, and Success', *Journal of Sustainable Tourism* 17(2), 2009, pp. 169-189.

⁶⁹⁷ N. Pappas & K. Glyptou, 'Accommodation decision-making during the COVID-19 pandemic: Complexity insights from Greece', *International Journal of Hospitality Management* 93, 2021, p. 102767.

endeavours may result in enhanced inclusivity and equity in the results.⁶⁹⁸ The engagement of local communities will be integral to the decision-making processes, so ensuring that the growth of tourism is in accordance with their specific needs and ambitions. This method is expected to cultivate a feeling of ownership and pride among communities, therefore promoting the adoption of more sustainable and responsible practises in the tourist industry.⁶⁹⁹

The inclusion of local communities as active participants in the development of tourism plays a pivotal role in promoting the genuine and authentic tourism experiences that tourists are seeking. By providing communities with the necessary skills, resources, and authority to make decisions, they are able to actively engage in the process of developing their own tourist experiences.⁷⁰⁰ This active participation enables them to generate money and mitigate the negative effects of excessive commercialization. This method yields thus advantages for both local communities and travellers, so improving the overall quality of tourist experiences and contributing to the sustainability and mutual benefit of the tourism sector.⁷⁰¹

5.6 Conclusion: Navigating Towards a Sustainable Future

The post-pandemic era presents a promising outlook for the future of sustainable tourism, offering significant opportunities for transformative advancements.⁷⁰² The establishment of a more sustainable and responsible tourist sector may be achieved by the adoption of local and nature-based tourism, utilisation of technology, active involvement of

⁶⁹⁸ Y. Li & C. Hunter, 'Community involvement for sustainable heritage tourism: a conceptual model', *Journal of Cultural Heritage Management and Sustainable Development* 5(3), 2015, pp. 248-262; R. Robina-Ramírez *et al.*, 'Tourism governance during the COVID-19 pandemic crisis: A proposal for a sustainable model to restore the tourism industry', *Environment, Development and Sustainability*, 2021, pp. 1-22.

⁶⁹⁹ M. Steinbrink *et al.*, 'Development and globalization of a new trend in tourism', *Slum tourism: Poverty, power and ethics* 32, 2012, pp. 1-17.

⁷⁰⁰ M. Gato *et al.*, 'Marketing communication and creative tourism: An analysis of the local destination management organization', *Journal of Open Innovation: Technology, Market, and Complexity* 8(1), 2022, p. 40.

⁷⁰¹ G. Richards, 'Creativity and tourism in the city', *Current issues in Tourism* 17(2), 2014, pp. 119-144.

⁷⁰² The International Ecotourism Society, 2019., 'What Is Ecotourism?', <<https://ecotourism.org/what-is-ecotourism/>>, accessed: 19 July 2023.

communities, development of resilience and promotion of cooperation.⁷⁰³ It is crucial that stakeholders from all sectors collaborate in order to capitalise on this potential and define a future in which tourism plays a significant role in promoting the welfare of both people and the environment. The progression of the worldwide tourism sector is contingent upon its capacity to adjust, introduce and give precedence to sustainability.⁷⁰⁴ The post-pandemic recovery endeavours provide a favourable occasion for profound and impactful alterations, allowing the sector to establish a trajectory towards resilience, accountable methodologies and beneficial effects on society. By adopting technological innovations, fostering collaborative alliances and implementing sustainable approaches, the tourist sector has the potential to create a future that not only rebounds from previous upheavals but also establishes a more symbiotic relationship with the earth and its people.⁷⁰⁵

⁷⁰³ Z, Xiang *et al.*, 'A comparative analysis of major online review platforms: Implications for social media analytics in hospitality and tourism', *Tourism Management* 58, 2017, pp. 51-65.

⁷⁰⁴ H. Tuppen, 7 June 2022., 'The Long Run Supports Critical New Research On Regenerative Tourism', <<https://www.thelongrun.org/the-long-run-supports-critical-new-research-on-regenerative-tourism/>>, accessed: 19 June 2023.

⁷⁰⁵ R. Staiff & R. Bushell, 'Tourism and protected areas: Benefits beyond boundaries', *Annals of Tourism Research* 31(3), 2004, pp. 723-726.

Chapter 6: Conclusion

A phenomenon that rapidly transforms into an unpleasant circumstance is sometimes referred to as a “crisis”.⁷⁰⁶ As this dissertation has shown, over recent years, several crises have had an impact on the tourism industry. However, despite the increasing attention given to the research on tourism crises, their effects continue to persist.⁷⁰⁷ The world was turned upside down by the Corona virus pandemic. Travelling for many years was relatively easy and tourism industries across the globe have arguably done rather well.⁷⁰⁸ This study has made it apparent that the COVID-19 pandemic that shook the world in 2020, resulted in tourism declining as travelling became restricted. What made this even more problematic is that many countries use tourism as a tool to boost their economies.⁷⁰⁹ Without tourism and international travellers, many economies, especially in less economically developed countries in the global South, are facing economic decline.⁷¹⁰ Tourism companies permanently closed their doors and countless people found themselves unemployed in both the formal and informal sectors, many of whom are still struggling to get back on their feet.⁷¹¹

On the other side of the coin, almost all countries welcomed tourists with open arms in the aftermath of the pandemic within very few months.⁷¹² During the Covid-19 pandemic countries such as: Mexico, Albania, Colombia and even North Macedonia did not have strenuous travel restrictions due to the virus and they did not even require COVID-19 tests before the arrival of tourists.⁷¹³ These countries and their governments were either

⁷⁰⁶ E. Laws & B. Prideaux, ‘Crisis management: A suggested typology’, *Journal of Travel & Tourism Marketing* 19(2-3), 2006, pp. 1-8.

⁷⁰⁷ B.W. Ritchie *et al.*, ‘Tourism crises and disasters’, *The wiley blackwell companion to tourism*, 2014, pp. 611-622; Y. Jiang *et al.*, ‘Bibliometric visualisation: An application in tourism crisis and disaster management research’, *Current Issues in Tourism* 22(16), 2019, pp. 1925-1957.

⁷⁰⁸ B. Boniface *et al.*, *Worldwide destinations: The geography of travel and tourism*, pp. 3-21.

⁷⁰⁹ M.T. Sinclair, ‘Tourism and economic development: A survey’, *The journal of development studies* 34(5), 1998, pp. 1-51.

⁷¹⁰ A. Spenceley & D. Meyer, ‘Tourism and poverty reduction: Theory and practice in less economically developed countries’, *Journal of Sustainable Tourism* 20(3), 2012, pp. 297-317.

⁷¹¹ S. Bhoola, ‘The Impact of Covid-19 Pandemic Lockdown Measures on Restaurants in Durban, South Africa’, *African Journal of Hospitality, Tourism and Leisure* 11(4), 2022, pp. 1408-1424.

⁷¹² J. Liebig *et al.*, ‘Should international borders re-open? The impact of travel restrictions on COVID-19 importation risk’, *BMC public health* 21, 2021, pp. 1-9; O. Ikotun *et al.*, ‘Sustainability of borders in a post-COVID-19 world’, *Politikon* 48(2), 2021, pp. 297-311; S. Heinikoski, ‘COVID-19 Bends the Rules on Border Controls’, *FIIA Briefing Paper* 281, 2020, pp. 1-8.

⁷¹³ Anon, 18 July 2021, <<https://blog.wego.com/international-reopening/>>, accessed: 19 July 2021.

at the forefront of pandemic preparedness or they put their citizens at unnecessary risk. Some countries only required proof of testing negative for the virus or proof of vaccination and included countries such as: Belize, Morocco, Ivory Coast, Seychelles,⁷¹⁴ Maldives⁷¹⁵ and the United States of America,⁷¹⁶ to name but a few. While other countries had instruments such as block lists or colour coded lists, which served to discriminate against where peoples' flights were departing from and where they had travelled. People who had come from certain countries or had travelled through specific countries within a given time frame were also subjected to different rules. Land border closure seriously affected the livelihood of people such as farmers living in Nigeria and the Benin Republic. Their situation was as a result of losing their principal sources of income.⁷¹⁷ Other countries that struggled due to lack of border openings included: Zimbabwe,⁷¹⁸ Namibia, Kenya,⁷¹⁹ Mozambique, and Ecuador.⁷²⁰

The majority of the pandemics discussed in this study are characterised by the transmission of newly identified, highly transmissible viruses that cause respiratory distress. Given the presence of a new virus, the full understanding of the repercussions resulting from infection remains incomplete, and the potential for medical intervention is still relatively limited. Transmission is also a common phenomenon, since it often occurs via the inhalation of droplets produced by the coughs or sneezes of a person who is infected. The H1N1 virus has been identified as a 'founder virus' and continues to exhibit several strains that are now in circulation. The potential for SARS-CoV-2 to emerge as a 'founder virus' has yet to be determined.⁷²¹

⁷¹⁴ Anon, 23 May 2021, <<https://travelbans.org/africa/seychelles/>>, accessed: 19 July 2021.

⁷¹⁵ Anon, 18 July 2021, <<https://visitmaldives.com/en/covid19-updates>>, accessed: 19 July 2021.

⁷¹⁶ U.S Embassy & Consulates in South Africa, 2021, <<https://za.usembassy.gov/covid-19-information-2/>>, accessed: 19 July 2021.

⁷¹⁷ B. Ibrahim & D. Singh, 'Challenges and prospects undermining the Nigeria's policy of closing land border: A lesson for other African countries', *Our Heritage Journal* 22(1), 2020, pp. 226-238.

⁷¹⁸ H. Ncube, 'Tragedy within the new normal: Catechizing the surge in intimate partner violence in Zimbabwe during the Covid 19 pandemic. Is home a safe haven?', *The Dyke* 15(3), 2021, pp. 1-22.

⁷¹⁹ J. Bélair *et al.*, 'COVID-19 in Sub-Saharan Africa: Impacts on land, governance, and livelihoods', *Land Use Policy* 134, 2023, p. 106877.

⁷²⁰ D.R. Shakya *et al.*, 'COVID-19 across countries: situation and lessons for pandemic control', *Journal of BP Koirala Institute of Health Sciences* 3(1), 2020, pp. 9-27.

⁷²¹ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

Thus, it is apparent that the COVID-19 epidemic has had significant repercussions on both regional and global economies, particularly affecting the creative industries and tourism sector. In the year 2021, UNESCO and other UN organisations undertook many studies to evaluate the financial ramifications within the worldwide cultural and tourist industry. The numerical data alone serves as a stark representation of the adverse circumstances that were collectively experienced.⁷²²

Presently, the world's level of preparedness for an impending pandemic surpasses that of a century ago, there is however still a long way to go. In order to continuously monitor and be prepared for the potential transmission of viruses from animals to humans, global monitoring programmes for influenza have been implemented by organisations such as the WHO and the UN.⁷²³ The use of enhanced management practises has led to notable improvements, including the proactive culling of large populations of chickens afflicted with potentially pandemic strains of viruses, such as H5N1 and H7N9, that have the potential for animal to human transmission. Furthermore, a better understanding of the human adaptability of influenza viruses and the presence of pre-existing immunity due to historical influenza outbreaks are expected to enhance the ability to accurately predict the severity of a future viral infection, even prior to the establishment of a pandemic caused by the specific influenza virus in question.⁷²⁴

Improving the understanding of the human immune response to pandemic viruses will ultimately contribute to the development of inclusive comprehensive vaccines. Nevertheless, a significant number of nations have implemented a pandemic preparedness plan that outlines the necessary preventative measures to be implemented in the event of an emerging viral pandemic. The aforementioned initiatives include a range of measures, such as monitoring, diagnostics, passenger screening from regions at risk

⁷²² F. Jing, 2021, <<https://bangkok.unesco.org/content/sustainable-tourism-post-pandemic-era-lessons-learnt-new-directions-unesco>>, accessed: 13 October 2022.

⁷²³ A.J. Hay & J.W. McCauley, 'The WHO global influenza surveillance and response system (GISRS)—a future perspective', *Influenza and other respiratory viruses* 12(5), 2018, pp. 551-557; T. Ziegler *et al.*, '65 years of influenza surveillance by a World Health Organization-coordinated global network', *Influenza and other respiratory viruses* 12(5), 2018, pp. 558-565.

⁷²⁴ M. Richard *et al.*, 'Limited airborne transmission of H7N9 influenza A virus between ferrets', *Nature* 501(7468), 2013, pp. 560-563.

of outbreak, quarantine protocols, stockpiling of antibiotics, antivirals, bacterial and viral vaccinations, as well as the distribution of medical resources such as PPE.⁷²⁵ It should however be noted that there is however insufficient evidence provided about the potential effectiveness of PPE, such as face masks, on preventing transmission.⁷²⁶ Although NPIs shown a certain level of effectiveness in mitigating mortality during the 1918 pandemic, they were implemented with less stringency in the more recent global pandemic. More research is needed on the uncertain impact that more rigorous NPIs might have had on decreasing pandemic mortality.⁷²⁷

The 2009 H1N1 pandemic highlighted and emphasised the need of adopting a moderately adaptable strategy towards pandemic preparation. This method enables nations to formulate and execute their own risk evaluations, drawing upon the global assessments and advice supplied by the WHO.⁷²⁸ Nonetheless, maintaining effective communication between governments and the WHO remains vital. Furthermore, looking to the future it will be imperative for governments and individuals in positions of power to establish public confidence prior to the occurrence of any future significant epidemic or pandemic to ensure that people have trust and confidence in them. This strategy will effectively disseminate information to the general population about anticipated circumstances and appropriate behavioural guidelines. This is expected to enhance adherence to preventive measures during a pandemic situation as people are more likely to follow rules and regulations if they have faith in and trust the people setting out these guidelines.⁷²⁹

⁷²⁵ J.F. Brundage, 'Interactions between influenza and bacterial respiratory pathogens: implications for pandemic preparedness', *The Lancet infectious diseases* 6(5), 2006, pp. 303-312; M.J. Memoli *et al.*, 'An early 'classical' swine H1N1 influenza virus shows similar pathogenicity to the 1918 pandemic virus in ferrets and mice', *Virology* 393(2), 2009, pp. 338-345; S.B. Mossad, 'Influenza in long-term care facilities: preventable, detectable, treatable', *Cleveland Clinic journal of medicine* 76(9), 2009, pp. 513-521.

⁷²⁶ N.M. Ferguson *et al.*, 'Strategies for mitigating an influenza pandemic', *Nature* 442(7101), 2006, pp. 448-452.

⁷²⁷ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

⁷²⁸ L. Rudenko *et al.*, 'Will there ever be a new influenza pandemic and are we prepared?', *Vaccine* 33(49), 2015, pp. 7037-7040.

⁷²⁹ H. Joffe & G. Haarhoff, 'Representations of far-flung illnesses: The case of Ebola in Britain', *Social science & medicine* 54(6), 2002, pp. 955-969.

In spite of the notable progress achieved in pandemic preparation during the last century, there is at present a range of novel unsolved problems related to the realm of pandemics. The current population demography exhibits significant disparities compared to that of 1918.⁷³⁰ Presently, a substantial proportion of the global population consists of individuals who are either advanced in age or afflicted with one or multiple enduring health ailments resulting in them falling under the 'at risk' population, encompassing, but not limited to, heart disease, obesity, asthma, and diabetes.⁷³¹ The population of 'at risk' immunosuppressed people, resulting from untreated Human Immunodeficiency Virus (HIV) infection, transplantation, and/or chemotherapy, is likewise seeing a significant rise in numbers.⁷³² The relevance of this shifting population demography lies in the fact that each of these host characteristics has been shown to amplify the severity of even moderate virus infections. The complexity of mitigating future pandemics will be exacerbated by the widespread presence of antibacterial resistance along with a growing reluctance towards vaccination for various infectious diseases.⁷³³ Less Economically Developed Countries (LEDCs), characterised by a high prevalence of underlying illnesses such as TB and HIV, together with an underprepared healthcare system, have a heightened vulnerability to severe morbidity in the event of future pandemics.⁷³⁴

⁷³⁰ D.M. Morens *et al.*, 'Predominant role of bacterial pneumonia as a cause of death in pandemic influenza: implications for pandemic influenza preparedness', *The Journal of infectious diseases* 198(7), 2008, pp. 962-970; C.J. Murray *et al.*, 'Estimation of potential global pandemic influenza mortality on the basis of vital registry data from the 1918–20 pandemic: a quantitative analysis', *The Lancet* 368(9554), 2006, pp. 2211-2218.

⁷³¹ D.M. Morens & A.S. Fauci, 'The 1918 influenza pandemic: insights for the 21st century', *The Journal of infectious diseases* 195(7), 2007, pp. 1018-1028; G. La Ruche *et al.*, 'The 2009 pandemic H1N1 influenza and indigenous populations of the Americas and the Pacific', *Eurosurveillance* 14(42), 2009, pp. 19366; S.M. Flint *et al.*, 'Disproportionate impact of pandemic (H1N1) 2009 influenza on Indigenous people in the Top End of Australia's Northern Territory', *Medical Journal of Australia* 192(10), 2010, pp. 617-622.

⁷³² K.M. Kunisaki & E.N. Janoff, 'Influenza in immunosuppressed populations: a review of infection frequency, morbidity, mortality, and vaccine responses', *The Lancet infectious diseases* 9(8), 2009, pp. 493-504; A.N. Sheth *et al.*, 'Influenza and HIV: lessons from the 2009 H1N1 influenza pandemic', *Current HIV/AIDS Reports* 8, 2011, pp. 181-191.

⁷³³ R.T. Perry *et al.*, 'Global control and regional elimination of measles, 2000–2012', *Morbidity and Mortality Weekly Report* 63(5), 2014, pp. 103; M.J. Memoli *et al.*, 'Pandemic and seasonal influenza: therapeutic challenges', *Drug discovery today* 13(13-14), 2008, pp. 590-595.

⁷³⁴ C.J. Murray *et al.*, 'Estimation of potential global pandemic influenza mortality on the basis of vital registry data from the 1918–20 pandemic: a quantitative analysis', *The Lancet* 368(9554), 2006, pp. 2211-2218; M. Novelli *et al.*, 'No Ebola... still doomed'—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87.

The fatalities resulting from the 1918 pandemic might provide insights into the potential consequences of a modern pandemic.⁷³⁵ Based on the link between population density and influenza mortalities, it may be inferred that urban areas are more likely to exhibit higher mortality rates compared to rural regions. In contrast to the situation in 1918, contemporary society exhibits a greater degree of interconnectedness between urban and rural regions. This heightened connectivity and lack of relative isolation has the potential to mitigate the disparities in death rates between cities and rural areas.⁷³⁶

The provision of health care becomes inconsequential unless there are established mechanisms in place to safeguard against the disruption of health-care services caused by a pandemic, as well as to facilitate the efficient management of deceased individuals within urban areas. This issue was particularly noticeable in Philadelphia during WW1, when the 1918 influenza situation was further worsened by medical personnel being absent from their duties due to wartime obligations. In the event that medical personnel are affected by a virus and healthcare facilities become overloaded, it is anticipated that the length and severity of a pandemic would be exacerbated.⁷³⁷

The potential consequences of these effects may be further exacerbated by the complications of climate change, resulting in the occurrence of food scarcity, hunger and the greater displacement of people. Currently, the ability to forecast the specific virus strain that would cause the next major pandemic remains unknown and is in fact a global challenge. Nevertheless, earlier pandemics have shown several waves of infections and demonstrated indications of adapting in the human strain.⁷³⁸

⁷³⁵ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷³⁶ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷³⁷ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷³⁸ Y. Chen *et al.*, 'Human infections with the emerging avian influenza A H7N9 virus from wet market poultry: clinical analysis and characterisation of viral genome', *The Lancet* 381(9881), 2013, pp. 1916-1925; K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

The rules pertaining to travel limitations are subject to frequent modifications, requiring anyone wanting to travel to regularly consult official websites in order to ascertain their eligibility for visiting certain destinations. One significant issue arises when countries such as South Africa choose to first open their borders, only to see a dramatic escalation in COVID-19 or other viral cases, prompting them to later reinstate border closures and lockdowns.⁷³⁹ Examining the strategies used during pandemics provides insights into more effective approaches to mitigate the recurring nature of pandemic responses. There is thus a serious need to investigate the potential ways for governments severely impacted by pandemics to recover. It is therefore essential to subject government policies that have been promulgated to rigorous examination, while governments without a pre-established pandemic readiness plan must derive valuable lessons from their potentially preventable errors.

There has been some first-hand evidence in favour of the principle that the prompt deployment of many NPIs may effectively reduce the pandemic transmission rates and significantly decrease the peak mortality rates.⁷⁴⁰ The differences in experiences across various cities and countries relates to the time and force of these initiatives.⁷⁴¹ The implementation of social distancing measures, regular handwashing or the use of hand sanitizers and the wearing of facemasks might potentially serve as effective strategies in mitigating the impact of future pandemics.⁷⁴² These approaches have the potential to provide a delay in the number of cases until vaccinations are readily accessible to the general population. The effectiveness of these treatments will be dependent upon their

⁷³⁹ L. Louw-Vaudran & R. Chikohomero, 19 January 2021, 'High-level talks and use of SADC guidelines on the pandemic should have been used to prevent a crisis', <<https://issafrica.org/iss-today/dialogue-could-have-averted-covid-19-border-chaos>>, Accessed: 5 April 2023.

⁷⁴⁰ R.J. Hatchett *et al.*, 'Public health interventions and epidemic intensity during the 1918 influenza pandemic', *Proceedings of the National Academy of Sciences* 104(18), 2007, pp. 7582-7587.

⁷⁴¹ M.C. Bootsma & N.M. Ferguson, 'The effect of public health measures on the 1918 influenza pandemic in US cities', *Proceedings of the National Academy of Sciences* 104(18), 2007, pp. 7588-7593; K.R. Nigmatulina & R.C. Larson, 'Living with influenza: impacts of government imposed and voluntarily selected interventions', *European Journal of Operational Research* 195(2), 2009, pp. 613-627.

⁷⁴² P. Little *et al.*, 'An internet-delivered handwashing intervention to modify influenza-like illness and respiratory infection transmission (PRIMIT): a primary care randomised trial', *The Lancet* 386(10004), 2015, pp. 1631-1639.

prompt and consistent execution, as well as individuals' likelihood to adhere to them.⁷⁴³ Procedures such as monitoring, quarantine and isolation are also effective in facilitating control measures.⁷⁴⁴ The priority of global public health efforts has shifted towards the development of solutions aimed at reducing the severity of a potential new viral pandemic. The preventive and containment tactics for virus control may be classified into three categories: antiviral measures, vaccination and NPIs such as case isolation, family quarantine, school or workplace closure, and travel restrictions. Statistical models serve as effective instruments for investigating the intricate realm of intervention techniques and assessing the possible advantages and disadvantages associated with various methods.⁷⁴⁵

In the modern context of an intricate and interdependent global environment, the need of coordination and collaboration is paramount, particularly in the jurisdiction of global security. The significance of travel and tourism in the global economy cannot be overstated, as it contributes to about 10% of the global GDP and supports one out of every ten jobs worldwide.⁷⁴⁶ Consequently, the repercussions of a health emergency extends beyond the well-being of individuals to include the whole economic well-being as well. Therefore, it is important to foster collaboration not just between the public and private sectors, but also inside each of these sectors. This will guarantee that all relevant stakeholders are equipped with prompt and precise information, enabling them to make effective and advantageous decisions. It is imperative that all relevant ministries, including Finance, Health, Tourism and Transport, be included in the decision-making process.⁷⁴⁷

⁷⁴³ K.R. Short *et al.*, 'Back to the future: lessons learned from the 1918 influenza pandemic', *Frontiers in cellular and infection microbiology* 8, 2018, p. 343.

⁷⁴⁴ H. Joffe & G. Haarhoff, 'Representations of far-flung illnesses: The case of Ebola in Britain', *Social science & medicine* 54(6), 2002, pp. 955-969.

⁷⁴⁵ N.M. Ferguson *et al.*, 'Strategies for mitigating an influenza pandemic', *Nature* 442(7101), 2006, pp. 448-452.

⁷⁴⁶ I. Soja, 7 October 2022, '10% of Jobs Worldwide Connected to the Tourism Industry- What Does That Mean?', <https://www.solimarinternational.com/10-of-jobs-are-worldwide-connected-to-the-tourism-industry-what-does-that-mean/>, Accessed: 12 October 2023.

⁷⁴⁷ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

In the year 2020, a significant proportion of UNESCO World Heritage sites were rendered inaccessible to the public. This factor resulted in a noteworthy decrease in the revenue generated by airline and accommodation industries. Furthermore, a significant decrease of GDP was seen specifically on several Pacific islands that heavily depend on tourism as a major economic driver. Additionally, World Heritage sites throughout the globe experienced comparable severe consequences on their respective broader local communities.⁷⁴⁸ Working-age people have shown a higher likelihood of survival in the context of the COVID-19 pandemic compared to earlier pandemics. Therefore, it is improbable that COVID-19 would result in a prolonged labour supply shock of comparable magnitude.⁷⁴⁹

As a consequence of the recent pandemic experience, the WTTC has identified 'Crisis Preparedness' as a key priority in preparing for pandemics. To address this, the Council is engaging in collaboration with the World Economic Forum, WHO, the World Bank and other relevant stakeholders. The objective of this collaboration is to establish a communication platform specifically for the travel and tourism industries. This platform aims to efficiently distribute information to a global audience.⁷⁵⁰

The field of tourism research has shown a basic understanding of the possible systemic impacts of global climate change. However, there has been a lack of similar recognition about the systemic implications of pandemics. The tourism industry has historically shown resilience in the face of external shocks, much of which can more recently be attributed to revenge tourism. There is information suggesting that the consequences and subsequent recovery from the COVID-19 pandemic will be unparalleled in nature. The absence of physical touch between service providers and clients renders the use of

⁷⁴⁸ F. Jing, 2021, <<https://bangkok.unesco.org/content/sustainable-tourism-post-pandemic-era-lessons-learned-new-directions-unesco>>, accessed: 13 October 2022.

⁷⁴⁹ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

⁷⁵⁰ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

modern technology insufficient in creating a memorable travel experience, owing to the distinctive attributes of services.⁷⁵¹

Municipal, state and federal governments need to be dependable in aiding during a modern pandemic. Many governments have shown their incompetence in managing catastrophic events in previous crises. It appears the impacts of a modern pandemic are likely to be mitigated via the implementation of local preparation measures by health authorities and hospitals, the involvement of volunteer services such as the Red Cross and private enterprises and the responsible steps taken by the respective citizens.⁷⁵²

The implementation of local quarantines had a detrimental impact on businesses and companies in the immediate term. It is probable that employees would face the possibility of being terminated from their positions due to a lack of income into the company. In order to effectively curb the transmission of infectious diseases, it is essential that quarantines be implemented in a comprehensive manner, whereby individuals are required to remain inside their homes and refrain from engaging in any form of external activities. Partial quarantines characterised by the closure of educational institutions and places of worship, but allowing the continued operation of other daily operations such as public transportation and dining establishments rendered the situation relatively ineffective.⁷⁵³ If the transmissibility is shown to be more comparable to the levels seen in 1968 or 1957 rather than in 1918, the rate of worldwide transmission will be slower, resulting in much improved effectiveness of all non-travel-related control measures.⁷⁵⁴

Undoubtedly, the successful mitigation of a pandemic requires the collaborative efforts and strategic coordination of many governmental entities and commercial enterprises.

⁷⁵¹ M.I. Awan *et al.*, 'Implementing cleanliness is half of faith in re-designing tourists, experiences and salvaging the hotel industry in Malaysia during COVID-19 pandemic', *Journal of Islamic Marketing* 13(3), 2020, pp. 543-557.

⁷⁵² T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷⁵³ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷⁵⁴ N.M. Ferguson *et al.*, 'Strategies for mitigating an influenza pandemic', *Nature* 442(7101), 2006, pp. 448-452.

Regrettably, research indicates that the world lacked adequate preparedness for a major pandemic. In the USA, in recent years there has been a growing emphasis on preparation among federal, state and municipal governments. However, it is evident that advancements in this area have been somewhat sluggish, particularly at the local level of government. Historically, several tiers of governmental bodies have shown little efficiency in effectively coordinating disaster response efforts. Conversely, private charitable organisations and volunteer groups, such as the American Red Cross, have consistently demonstrated commendable performance and often assume the role of first responders. The implementation of comprehensive public education initiatives about disease prevention, increased dependence on philanthropic and volunteer organisations, and the cultivation of personal responsibility might potentially serve as effective strategies for safeguarding the world in the case of a future pandemic.⁷⁵⁵

The implementation of border limitations and internal travel restrictions is unlikely to significantly impede the transmission of a disease, even though it is evident that it inhibits the spread. The closure of educational institutions at the height of a pandemic has the potential to decrease the occurrence of high infection rates, not only among the youth, but also for the elder members of their families. However, it seems to have little influence on the overall infection rates. Conversely, implementing case isolation or family quarantine measures, if logistically possible, might yield substantially better effects. The use of antiviral treatment within 24 hours of symptom onset has been shown to effectively mitigate transmission in clinical situations. The pre-emptive accumulation of vaccines in preparation for a potential pandemic has the potential to substantially decrease the incidence of infection, even if the vaccines possess a relatively low level of effectiveness. The estimates on the efficiency of policies will undergo modifications in the event that the attributes of a forthcoming pandemic strain deviates significantly from those seen in previous pandemics.⁷⁵⁶ The collective recuperation of society from the 1918 pandemic was expeditious - yet, the individuals who fell victim to the virus had enduring changes in

⁷⁵⁵ T.A. Garrett, 'Economic effects of the 1918 influenza pandemic', *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷⁵⁶ N.M. Ferguson *et al.*, 'Strategies for mitigating an influenza pandemic', *Nature* 442(7101), 2006, pp. 448-452.

their lives. Considering the current state of our society, characterised by increased mobility and connectivity, it is probable that any next pandemic would exhibit a greater extent of impact and perhaps higher virulence compared to the 1918 influenza outbreak. This projection holds true despite the advancements in healthcare that have transpired over the preceding century. The potential for drawing upon historical experiences to alleviate the magnitude of future pandemics is thus worth considering.⁷⁵⁷

When a novel pandemic virus begins to spread inside a country, it becomes imperative to implement interventions that are specifically tailored to achieve the highest possible level of effectiveness before it becomes an epidemic. Implementing the intense control techniques proposed for preventing a pandemic at its origin is deemed unfeasible due to the continuous reintroduction of infections into a country by incoming tourists. The prioritisation of clinical cases is of utmost importance in implementing a more focused strategy since the timely administration of antiviral medication has been shown to effectively decrease both the severity of clinical symptoms and the potential for transmission.⁷⁵⁸

There are two notable distinctions between the NPIs implemented in 1918 and those observed in 2020. Initially, it is important to note that the limits imposed in 1918 were somewhat less stringent as compared to the current “shelter in place”⁷⁵⁹ measures implemented in reaction to the COVID-19 pandemic. Both pandemics rapidly dispersed worldwide within a few months. It is important to note that neither pandemic had an established medical therapy at the time of the outbreak, leading to the implementation of NPI in order to mitigate the transmission rate of both pandemics.⁷⁶⁰ Pandemics, epidemics and outbreaks of infectious illnesses were prevalent and sporadic occurrences in human existence prior to the twentieth century, and correspondingly, efforts to mitigate

⁷⁵⁷ T.A. Garrett, ‘Economic effects of the 1918 influenza pandemic’, *Federal Reserve Bank of St. Louis* 26, 2007, pp. 74-94.

⁷⁵⁸ N.M. Ferguson *et al.*, ‘Strategies for mitigating an influenza pandemic’, *Nature* 442(7101), 2006, pp. 448-452.

⁷⁵⁹ D. Dave *et al.*, ‘When do shelter-in-place orders fight COVID-19 best? Policy heterogeneity across states and adoption time’, *Economic inquiry* 59(1), 2021, pp. 29-52.

⁷⁶⁰ B. Beach *et al.*, ‘The 1918 influenza pandemic and its lessons for COVID-19’, *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

their transmission were also apparent. In municipalities possessing commercial linkages, the practise of imposing quarantine measures upon ships, sailors and merchandise became prevalent, but often exhibiting inadequate enforcement. Hence, the fundamental tenets of quarantine have been in existence for several centuries.⁷⁶¹ Peoples' awareness of 'germs' played a pivotal role in enhancing the comprehension of public health officials and the general population about the significance of hand hygiene and respiratory etiquette in mitigating the spread of TB. This understanding has seamlessly transferred into the context of influenza as well.⁷⁶²

There has been a proposal for the implementation of a comprehensive strategy, known as the "continuous interventions approach",⁷⁶³ which involves proactive measures to be implemented at the individual, community and institutional levels in response to an outbreak. This strategy is intended to be sustained throughout the period between outbreaks and in the aftermath of a pandemic. Placing emphasis on the implementation of pre-emptive tactics has the potential to enhance the level of preparedness for epidemics, with a specific focus on vulnerable people and governmental entities in countries with a high risk of outbreaks. In essence, the implementation of frequent interventions is designed to ensure that individuals and institutions residing in high-risk locations remain vigilant, well equipped and consistently cognisant of the potential for outbreaks. The level of readiness described is expected to lead to a prompt reaction to an outbreak, hence significantly increasing the likelihood of effectively controlling the epidemic in a timely manner. At the governmental/institutional level, the policy of continual interventions should aim to enhance the capabilities and preparedness of diverse agencies responsible for delivering crucial services necessary for addressing

⁷⁶¹ G.F. Gensini *et al.*, 'The concept of quarantine in history: from plague to SARS', *Journal of Infection* 49(4), 2004, pp. 257-261.

⁷⁶² N. Tomes, 'Destroyer and teacher: Managing the masses during the 1918–1919 influenza pandemic', *Public Health Reports* 125(3), 2010, pp. 48-62; B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84; J. Mokyr & R. Stein, 'Science, health, and household technology: The effect of the pasteur revolution on consumer demand', *The economics of new goods*, 1996, pp. 143-206.

⁷⁶³ G.A. Matua *et al.*, 'Ebola hemorrhagic fever outbreaks: strategies for effective epidemic management, containment and control', *Brazilian Journal of Infectious Diseases* 19, 2015, pp. 308-313.

pandemics.⁷⁶⁴ Certain governmental bodies have acquired knowledge and expertise in dealing with infectious diseases, such as the SARS. However, several countries lack recent experience in dealing with infectious disease pandemics of such size as COVID-19.⁷⁶⁵

However, the ongoing uncertainties surrounding pandemics persistently generate concern among individuals and have significant implications for global tourism. As a consequence of this prevailing worry, both the realms of health and travel will encounter persistent challenges in their endeavours to revert to previous conditions to become more sustainable. Despite the largely controlled level of COVID-19, it is anticipated that precautionary measures will need to persist globally.⁷⁶⁶

While each crisis is unique, it is important to have proactive planning and strategy formulation by destinations in place before future pandemics. This approach is seen to be essential for enabling swift and efficient decision-making, particularly during the emergency phase. The research reveals a notable absence of preparedness and proactive strategizing, which eventually led to global inadequate recognition of crisis indicators in a timely manner, thereby causing a delay in the recovery process.⁷⁶⁷

Governments have been criticised for not learning from the earlier two pandemics caused by the coronaviruses. Governments have also been criticised for not knowing that such a

⁷⁶⁴ G.A. Matua *et al.*, 'Ebola hemorrhagic fever outbreaks: strategies for effective epidemic management, containment and control', *Brazilian Journal of Infectious Diseases* 19, 2015, pp. 308-313.

⁷⁶⁵ B. Beach *et al.*, 'The 1918 influenza pandemic and its lessons for COVID-19', *Journal of Economic Literature* 60(1), 2022, pp. 41-84.

⁷⁶⁶ G.A. Matua *et al.*, 'Ebola hemorrhagic fever outbreaks: strategies for effective epidemic management, containment and control', *Brazilian Journal of Infectious Diseases* 19, 2015, pp. 308-313.

⁷⁶⁷ M. Novelli *et al.*, 'No Ebola... still doomed—The Ebola-induced tourism crisis', *Annals of Tourism Research* 70, 2018, pp. 76-87; A. Paraskevas *et al.*, 'Crisis knowledge in tourism: Types, flows and governance', *Annals of Tourism Research* 41, 2013, pp. 130-152; A. Paraskevas & L. Altinay, 'Signal detection as the first line of defence in tourism crisis management', *Tourism Management* 34, 2013, pp. 158-171; B.W. Ritchie, 'Chaos, crises and disasters: a strategic approach to crisis management in the tourism industry', *Tourism management* 25(6), 2004, pp. 669-683; J.C. Henderson, 'Corporate social responsibility and tourism: Hotel companies in Phuket, Thailand, after the Indian Ocean tsunami', *International Journal of Hospitality Management* 26(1), 2007, pp. 228-239.

major pandemic was on its way.⁷⁶⁸ Without a doubt, historical facts and experiences serve as a point of reference in the context of pandemics, as they do in other fields. Nevertheless, the COVID-19 pandemic served as a profound and tumultuous educational experience. The global community, which has recently seen an unprecedented scale of human casualties and severe economic repercussions, has increasingly embraced the notion of comprehensive reconstruction.⁷⁶⁹ Travel and tourism were in fact key in the rapid transmission of the virus. The first confirmed case of COVID-19 in South Africa was brought in by a South African tourist who was returning from Italy on 5 March 2020, which proves that tourism is responsible for spreading the virus and the virus is responsible for disrupting tourism.⁷⁷⁰ Thus the tourism industry needs to look to the past in order to travel in the future!

⁷⁶⁸ N.C. Peeri *et al.*, 'The SARS, MERS and novel coronavirus (COVID-19) epidemics, the newest and biggest global health threats: what lessons have we learned', *International Journal of Epidemiology* 49(3), 2020, pp. 717-726.

⁷⁶⁹ G.A. Matua *et al.*, 'Ebola hemorrhagic fever outbreaks: strategies for effective epidemic management, containment and control', *Brazilian Journal of Infectious Diseases* 19, 2015, pp. 308-313.

⁷⁷⁰ J. Giandhari *et al.*, 'Early transmission of SARS-CoV-2 in South Africa: An epidemiological and phylogenetic report', *International Journal of Infectious Diseases* 103, 2021, 234-241.

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