

Monaco

This document is a compilation of all questions, justifications, and sources used to determine the 2021 Global Health Security Index scores for Monaco. For a category and indicator-level summary, please see the Country Profile for Monaco.

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Category 1: Preventing the emergence or release of pathogens with potential for international concern

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

Is there a national AMR plan for the surveillance, detection, and reporting of priority AMR pathogens?

Yes, there is evidence of an AMR plan, and it covers surveillance, detection, and reporting = 2, Yes, there is evidence of an AMR plan, but there is insufficient evidence that it covers surveillance, detection, and reporting = 1, No evidence of an AMR plan = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a national antimicrobial resistance (AMR) plan for the surveillance, detection and reporting of priority AMR pathogens according to the Global Database for Antimicrobial Resistance Country Self Assessment 2019-20 of the World Health Organization (WHO) [1]. Nevertheless, there is an AMR surveillance at the Princess Grace Hospital Centre (CHPG), the main public hospital of Monaco. Indeed, the main activities of the epidemiology and hospital hygiene division are the prevention of nosocomial infections thanks to the implementation of care protocols and maintenance of medical systems; the assessment and audit of hospital practices; the epidemiological monitoring of nosocomial infections; the fight against the emergence and spread of multi-resistant bacteria strains; bacteriological environmental control [2]. There is no further evidence via the WHO Library of National Action Plans, in the Ministry of Health, in the public health institute or in the medical biology laboratory [3, 4, 5, 6]. Monaco does not have a joint external evaluation (JEE) assessment [7] or a Ministry of Agriculture as there are no arable lands in the country.

[1] World Health Organization (WHO) & Food and Agriculture Organization of the United Nations (FAO). 2017. "Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS)". [<https://amrcountryprogress.org/>]. Accessed December 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Epidemiology And Hospital Hygiene". [<https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en>]. Accessed November 2020.

[3] Principauté de Monaco. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] World Health Organization (WHO). "Library of national action plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed November 2020.

[6] Medical Biology Laboratory - Laboratoire de Biologie Médicale. [<http://labomonaco.com/presentation>]. Accessed November 2020.

[7] World Health Organization (WHO). "Monaco". [<https://extranet.who.int/sph/country/312>]. Accessed November 2020.

1.1.1b

Is there a national laboratory/laboratory system which tests for priority AMR pathogens?

All 7 + 1 priority pathogens = 2, Yes, but not all 7+1 pathogens = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a national laboratory/laboratory system which tests for priority AMR pathogens. Moreover, there is no further evidence on how many tests for priority AMR pathogens the country can conduct. Indeed, although according to the Global Database for Antimicrobial Resistance Country Self Assessment 2019-20, "there is a functioning national AMR surveillance system covering common bacterial infections in hospitalized and community patients¹², with external quality assurance, and a national coordinating centre producing reports on AMR" [1], no reference to any specific test could be found. There are no further details on how the AMR surveillance is conducted. In Monaco, the Medical Biology Laboratory at the Princess Grace Hospital Centre (CHPG) is the laboratory in charge of the main medical biology activities which includes microbiology (bacteriology, parasitology and mycology). Nevertheless, not all tests are conducted on site, some are sent to qualified contacts and specialist labs [2]. No further evidence could be found via the WHO Library of National Action Plans, in the Ministry of Health, in the public health institute or in other medical biology laboratories [3, 4, 5, 6]. Monaco does not have a Ministry of Agriculture or a JEE assessment [7].

[1] World Health Organization (WHO) & Food and Agriculture Organization of the United Nations (FAO). 2019. "Global Database for Antimicrobial Resistance Country Self Assessment". [<https://amrcountryprogress.org/>]. Accessed December 2020

[2] The Princess Grace Hospital Centre (CHPG). "Biology Laboratory". [<https://www.chpg.mc/portfolio/biology-laboratory/?lang=en>]. Accessed November 2020.

[3] World Health Organization (WHO). "Library of national action plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed November 2020.

[4] Principauté de Monaco. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Epidemiology And Hospital Hygiene ". [<https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en>]. Accessed November 2020.

[6] Medical Biology Laboratory. "Analysis" - Laboratoire de Biologie Médicale. "Analyses". [<http://labomonaco.com/analyse/memo>]. Accessed November 2020.

[7] World Health Organization (WHO). 'Monaco'. [<https://extranet.who.int/sph/country/312>]. Accessed November 2020.

1.1.1c

Does the government conduct environmental detection or surveillance activities (e.g., in soil, waterways) for antimicrobial residues or AMR organisms?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that a governmental agency conducts environmental detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or antimicrobial resistance (AMR) organisms. Indeed, although there is evidence that these actions are carried out in the hospital sector for human health: Combating the emergence and spread and multi-resistant bacteria strains, Bacteriological environmental controls [1] and that "there is a functioning national AMR surveillance system covering antibiotics in hospitals and outpatient clinics, with external quality assurance, and a national coordinating centre producing reports on resistance levels" [2], there is no evidence that this is also the case for the environmental sector. There is no further evidence via the WHO Library of National Action Plans, in the Ministry of Health, in the public health institute or in the Department of the Environment [3, 4, 5, 6]. Monaco does not have a JEE assessment [7]. Finally, there is no publicly available evidence that Monaco has a national antimicrobial resistance (AMR) plan for the surveillance, detection and reporting of priority AMR pathogens according to the Global Database for Antimicrobial Resistance Country Self Assessment 2019-20 of the World Health Organization (WHO) [2].

- [1] The Princess Grace Hospital Centre (CHPG). "Epidemiology And Hospital Hygiene". [https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en]. Accessed November 2020.
- [2] World Health Organization (WHO) & Food and Agriculture Organization of the United Nations (FAO). 2018 "Global Database for Antimicrobial Resistance Country Self Assessment". [https://amrcountryprogress.org/]. Accessed November 2020.
- [3] World Health Organization (WHO). "Library of National Action Plans". [http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed November 2020.
- [4] Prince's Government. "Ministry of Health and Social Affairs". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs]. Accessed November 2020.
- [5] The Princess Grace Hospital Centre. [https://www.chpg.mc/?lang=en]. Accessed November 2020.
- [6] Prince's Government. "Department of the Environment". [https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Public-Works-the-Environment-and-Urban-Development/Department-of-the-Environment]. Accessed November 2020.
- [7] World Health Organization (WHO). 'Monaco'. [https://extranet.who.int/sph/country/312]. Accessed November 2020.

1.1.2 Antimicrobial control

1.1.2a

Is there national legislation or regulation in place requiring prescriptions for antibiotic use for humans?

Yes = 2 , Yes, but there is evidence of gaps in enforcement = 1 , No = 0

Current Year Score: 2

There is publicly available evidence that Monaco has national legislation in place requiring prescriptions for antibiotic use for humans. Indeed, the Ministerial Order n. 2018-149 of 26/02/2018 on good practices for dispensing a pharmaceutical product in pharmacies, requires prescriptions for some antibiotics [1]. However, some antibiotics do not require mandatory prescription [2]. In Article 1, it is stipulated that "the pharmacist is required to provide advice for antibiotic proper use, particularly when the pharmaceutical product does not require a medical prescription" [1]. There are no evidence of gaps in enforcement in the main outlet in the country, where even the sale of antibiotics online is highly regulated. [3] In addition, although during the COVID-19 pandemic, the requirement of prescriptions and their renewal has been flexibilized, the sector continues to be regulated. [4]

[1] Legimonaco, Monegasque Codes and Laws. Ministerial Order n. 2018-149 of 26/02/2018. "On Good Practices for Dispensing a Pharmaceutical Product in Pharmacies" - Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2018-149 du 26/02/2018. "Relatif aux bonnes pratiques de dispensation des médicaments dans les officines". [https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/0E8D4B8FD1CCACB1C1258271002E72FD]. Accessed November 2020.

[2] Prince's Government. "Sale of Medicines on the Internet". [https://en.service-public-particuliers.gouv.mc/Social-health-and-families/Public-health/Medecines/Sale-of-medicines-on-the-Internet]. Accessed November 2020.

[3] Monaco Hebdo. July 2016. "Non-prescription drugs delivered in a few clicks (Des médicaments sans ordonnance livrés en quelques clics)" [https://dev.monacohebdo.mc/actualites/societe/medicaments-ordonnance-livres-quelques-clics/]. Accessed November 2020

[4] Journal de Monaco. "Ministerial Decision of April 3, 2020 related to the period of validity of renewable prescriptions, taken in application of article 65 of Sovereign Ordinance no.6.387 of May 9, 2017 related to the implementation of the International Health Regulations (2005) in the fight against the international spread of disease". [https://journaldemonaco.gouv.mc/Journaux/2020/Journal-8481/Decision-Ministerielle-du-3-avril-2020-relative-a-la-duree-de-validite-des-ordonnances-renouvelables-prise-en-application-de-l-article-65-de-l-Ordonnance-Souveraine-n-6.387-du-9-]. Accessed November 2020

mai-2017-relative-a-la-mise-en-oeuvre-du-Reglement-Sanitaire-International]. Accessed November 2020

1.1.2b

Is there national legislation or regulation in place requiring prescriptions for antibiotic use for animals?

Yes = 2 , Yes, but there is evidence of gaps in enforcement = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has national legislation in place requiring prescriptions for antibiotic use for animals. There is evidence of a Ministerial Order n. 2003-172 of 03/03/2003 that prohibits selling some antibiotics for animals without a prescription [1]. However, the prescription is only mandatory for "antibiotics containing substances such as steroids; products likely to remain as toxic or dangerous residues in foods of animal origin; products likely to hinder the sanitary control of food from animals that have received these antibiotics" [1]. There are no further evidence in the main outlet in the country, in the WHO Library of National Action Plans, in the Ministry of Health or in the public health institute. [2,3,4]

[1] Legimonaco, Monegasque Codes and Laws. Ministerial Order n. 2003-172 of 03/03/2003. "Fixing the Special Conditions for Issuing Certain Antibiotics for Animals"- Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2003-172 du 03/03/2003. "Fixant les conditions particulières de prescription et de délivrance applicables à certains médicaments vétérinaires". [<https://journalde Monaco.gouv.mc/Journaux/2003/Journal-7591/Arrete-Ministeriel-n-2003-172-du-3-mars-2003-fixant-les-conditions-particulieres-de-prescription-et-de-delivrance-applicables-a-certains-medicaments-veterinaires>]. Accessed November 2020.

[2] World Health Organization (WHO). "Library of National Action Plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

Is there national legislation, plans, or equivalent strategy documents on zoonotic disease?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has a national law, plan, or equivalent strategy document which addresses zoonotic disease. Indeed, although a reference to zoonotic diseases was found in a press release of June 22, 2018, urging citizens vigilance regarding the tiger mosquito, no evidence of a plan or a strategy was found after this announcement. Further evidence could not be found via the Ministry of Health or in the Public Health Institute [1, 2, 3]. Moreover, there are no studies and articles related to this subject publicly available, and Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[3] Princeí Government. "Department of Health Affairs Urges Vigilance Regarding Tiger Mosquito, a Carrier of Several Contagious Diseases". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/La-Direction-de-l-Action-Sanitaire-appelle-a-la-vigilance-envers-le-moustique-tigre>]. Accessed November 2020.

1.2.1b

Is there national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. There is no such evidence in the Ministry of Health or in the Public Health Institute [1, 2]. Moreover, there are no studies and articles related to this subject publicly available, and Monaco does not have a Ministry of Agriculture. As such, there is no evidence of any measure for risk identification and reduction for zoonotic disease spillover events from animals to humans.

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.2.1c

Is there national legislation, plans, or guidelines that account for the surveillance and control of multiple zoonotic pathogens of public health concern?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has national plans, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern. Indeed, no evidence could be found via the Ministry of Health or in the Public Health Institute [1, 2]. Moreover, there are no studies and articles related to this subject publicly available, and Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Epidemiology And Hospital Hygiene".

[<https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en>]. Accessed November 2020.

1.2.1d

Is there a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries. Indeed, the Department of Health Affairs is responsible for all health-related activities, including "the development and implementation of emergency plans and the management of health crises" [1].

Nevertheless, among the listed responsibilities, there was no mention of zoonotic disease on the website of the Department of Health Affairs. No further evidence was publicly available via the Ministry of Health or in the Public Health Institute [2, 3]. Moreover, no studies and articles related to this subject are publicly available, and Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. "The Department of Health Affairs". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

Does the country have a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. Indeed, no evidence was publicly available via the Ministry of Health or in the Public Health Institute [1, 2]. Moreover, no studies and articles related to this subject are publicly available. Finally, Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.2.2b

Is there legislation and/or regulations that safeguard the confidentiality of information generated through surveillance activities for animals (for owners)?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that laws or guidelines are in place and safeguard the confidentiality of information generated through surveillance activities for animals (for owners), since there is no such a surveillance activity system in place. Nevertheless, Monaco has laws that safeguard the confidentiality of identifiable health information. Indeed, in Article 43 of Ordinance n. 3.153 of 24/02/2011, the confidentiality of identifiable health information for individuals is explicitly safeguard. However, there is no explicit mention that this law applies for surveillance of owned livestock [1]. No further evidence could be found via the Ministry of Health or in the Public Health Institute [2, 3]. Finally, Monaco does not have a Ministry of Agriculture.

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 3.153 of 24/02/2011. "Rendering Effective the International Health Regulations (2005) Adopted by the Fifty-eighth World Health Assembly effective on 23 May 2005"- Lègimonaco,

Codes et Lois Monégasques. Ordonnance n. 3.153 du 24/02/2011. "Rendant exécutoire le Règlement Sanitaire International (2005) adopté par la cinquante-huitième Assemblée Mondiale de la Santé le 23 mai 2005".

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/B1754B7932FCCE13C125787A00322CE4!OpenDocument>].

Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.2.2c

Does the country conduct surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors)?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.), also, there is no evidence of legislation pertaining to zoonotic disease surveillance. Indeed, the Department of Environment lists as its main tasks to monitor biodiversity and the quality of the environment, to detect sources of pollution and to identify risks of natural or technological origin. No further details were provided and no specific mention of zoonotic disease in wildlife was found [1]. In addition, there is no evidence of legislation pertaining to zoonotic disease surveillance available via the Ministry of Health or in the Public Health Institute [2, 3]. Moreover, there are no studies and articles related to this subject publicly available, and Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. "Department of the Environment". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Public-Works-the-Environment-and-Urban-Development/Department-of-the-Environment>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

Has the country submitted a report to OIE on the incidence of human cases of zoonotic disease for the last calendar year?

Yes = 1, No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: -

No data available

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: -

No data available

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

Does the national plan on zoonotic disease or other legislation, regulations, or plans include mechanisms for working with the private sector in controlling or responding to zoonoses?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of mechanisms for working with the private sector in controlling or responding to zoonoses since there is no evidence that the country has a national law, plan, or equivalent strategy document in controlling or responding to zoonoses. There is no evidence available in the Ministry of Health or in the Public Health Institute [1, 2]. Moreover, there are no publicly available studies and articles related to this subject, and Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

Does the country have in place a record, updated within the past five years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has in place a record, updated within the past five years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities. Indeed, although Monaco ratified the Geneva Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, it does not seem to have adopted biosecurity measures such as a record of the facilities in which especially dangerous pathogens and toxins are stored or processed. There is no evidence of a record via the VERTIC BWC Legislation Database, in Legimonaco, Monegasque Codes and Laws, in the Ministry of Health, in the Public Health Institute or in the Scientific Centre of Monaco [1, 2, 3, 4, 5, 6]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [7]. Moreover, Monaco does not have a Ministry of Agriculture or Defense.

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 15.760 of 03/04/2003. 'Rendering enforceable the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, Geneva 3 September 1992' -Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 15.760 du 03/04/2003. 'Rendant exècutoire la convention sur l'interdiction de la mise au point, de la fabrication, du stockage et de l'emploi des armes chimiques et sur leur destruction, faite à Genève le 3 septembre 1992'.

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/3324B3922068F1B3C125773F003CE08C!OpenDocument>]. Accessed November 2020.

[2] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. 'Laws' -Lègimonaco, Codes et Lois Monègasques. "Lois".

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[6] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[7] United Nations Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.3.1b

Does the country have in place legislation and/or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems, and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has in place legislation and/or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems, and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed. Indeed, although Monaco has ratified the Geneva Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare [1], it does not seem to have adopted biosecurity measures to account for and secure production, use, storage, and transport of particularly dangerous pathogens. There is no evidence of legislation and regulation in place via the VERTIC BWC Legislation Database, in Legimonaco, Monegasque Codes and Laws, in the Ministry of Health, in the Public Health Institute, or in the Scientific Centre of Monaco [2, 3, 4, 5, 6]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [7]. Monaco does not

have a Ministry of Agriculture or a Ministry of Defense.

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 15.760 of 03/04/2003. 'Rendering Enforceable the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, Geneva 3 September 1992" -Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 15.760 du 03/04/2003. "Rendant exécutoire la convention sur l'interdiction de la mise au point, de la fabrication, du stockage et de l'emploi des armes chimiques et sur leur destruction, faite à Genève le 3 septembre 1992".

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/3324B3922068F1B3C125773F003CE08C!OpenDocument>]. Accessed November 2020.

[2] VERTIC. 'Monaco". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. 'Laws"-Lègimonaco, Codes et Lois Monègasques. "Lois". [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[6] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[7] Confidence-Building Measures. 'Monaco". [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.3.1c

Is there an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has an agency responsible for enforcing biosecurity legislation and regulations since there is also no evidence of biosecurity legislations and regulations in place to be enforced. Indeed, there is no evidence of legislation and regulation in place via the VERTIC BWC Legislation Database, in Legimonaco, Monegasque Codes and Laws, in the Ministry of Health, and in the Public Health Institute [1, 2, 3, 4]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [5]. Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense.

[1] VERTIC. 'Monaco". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. 'Laws"-Lègimonaco, Codes et Lois Monègasques. "Lois". [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] Confidence-Building Measures. 'Monaco". [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.3.1d

Is there public evidence that shows that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. Indeed, there is no public evidence of inventories via the VERTIC BWC Legislation Database, in Legimonaco, Monegasque Codes and Laws, in the Ministry of Health, in the Public Health Institute, or in the Scientific Centre of Monaco [1, 2, 3, 4, 5]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [6]. Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense.

[1] VERTIC. "Monaco". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. "Laws"-Lègimonaco, Codes et Lois Monègasques. "Lois". [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[6] Confidence-Building Measures. "Monaco". [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.3.1e

Is there public evidence of in-country capacity to conduct Polymerase Chain Reaction (PCR)–based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has in-country capacity to conduct testing (e.g. Polymerase Chain Reaction, PCR) for Anthrax or Ebola. During the Ebola epidemic outbreak in West Africa in 2014, the government announced that if a case of Ebola was detected in Monaco, the patient would be transferred to the Assistance Publique Hôpitaux de Marseille, the leading French health facility for the southern region [1]. No further evidence could be found via the Ministry of Health or in the Public Health Institute [2, 3]. Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense.

[1] Prince's Government. 2014. "Ebola Viral Haemorrhagic Fever". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/Ebola-Viral-Haemorrhagic-Fever>]. Accessed November 2020.

[2] Prince's Government. ""Ministry of Health and Social Affairs"". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

1.3.2 Biosecurity training and practices

1.3.2a

Does the country require biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence of a mandatory standardized biosecurity curriculum or training programme for personnel working with especially dangerous biological substances. In the only available information on training for the Princess Grace Hospital Centre, biosecurity training is not mentioned. Indeed, laboratory approval and proficiency testing processes focus mainly on quality and safety rather than on security [1]. There is no further evidence via the Ministry of Health, in the Public Health Institute, in the Scientific Centre of Monaco, or in the VERTIC BWC Legislation Database [2, 3, 4, 5]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [6]. Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense.

[1] High Health Authority. 2015. 'Princess Grace Hospital Certification Report' -Haute Autorité de santé. "Rapport De Certification Centre Hospitalier Princesse Grace". [https://www.chpg.mc/wp-content/uploads/2016/12/30152_rac_vd.pdf]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[4] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[5] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[6] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

Do regulations or licensing conditions specify that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to the following checks: drug testing, background checks, and psychological or mental fitness checks?

Personnel are subject to all three of these checks = 3, Personnel are subject to two of these checks = 2, Personnel are subject to one of these checks = 1, Personnel are not subject to any of these checks = 0

Current Year Score: 0

There is no publicly available evidence of regulations and licensing conditions that require background checks for personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential. Further, there is no evidence that Monaco has laws dealing with the handling of dangerous biological materials [1]. There is no further information via the Ministry of Health, the Public Health Institute, the Princess Grace Hospital Certification Report, the Scientific Centre of Monaco, or the VERTIC BWC Legislation Database [2, 3, 4, 5, 6]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [7].

Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense.

- [1] Legimonaco, Monegasque Codes and Laws. 'Laws"-Lègimonaco, Codes et Lois Monègasques. ' Lois ⁹. [https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi]. Accessed November 2020.
- [2] Prince's Government. "Ministry of Health and Social Affairs". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs]. Accessed November 2020.
- [3] The Princess Grace Hospital Centre. [https://www.chpg.mc/?lang=en]. Accessed November 2020.
- [4] High Health Authority. 2015. "Princess Grace Hospital Certification Report" - Haute Autorité de santé. "Rapport De Certification Centre Hospitalier Princesse Grace". [https://www.chpg.mc/wp-content/uploads/2016/12/30152_rac_vd.pdf]. Accessed November 2020.
- [5] The Scientific Centre of Monaco (CSM). [https://www.centrescientifique.mc/en]. Accessed November 2020.
- [6] VERTIC. 'Monaco'. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/]. Accessed November 2020.
- [7] Confidence-Building Measures. 'Monaco'. [https://bwc-ecbm.unog.ch/state/monaco]. Accessed November 2020.

1.3.4 Transportation security

1.3.4a

Does the country have publicly available information on national regulations on the safe and secure transport of infectious substances (specifically including Categories A and B)?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available information that Monaco has national regulations governing the safe and secure transport of infectious substances (Categories A and B). Monaco signed and ratified, through the Ordinance n. 10.181 of 17/06/1991, the Convention concerning International Carriage by Rail (COTIF), with Appendix 3 referring to the International Carriage of Dangerous Goods by Rail (RID), explicitly referring to Categories A and B infectious substances [1]. It provides a regulatory framework on the safe and secure transport of infectious substances and gives guidance on special packaging for infectious substances such as: "the proper shipping name for UN No. 2814 is 'INFECTIOUS SUBSTANCE, AFFECTING HUMANS'. It also provides safety requirements for participants and personnel training [2]. In 2016, Monaco enforced all the regulations of the Convention concerning International Carriage by Rail [3]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [4]. Finally, no further evidence of legislation and regulation in place could be found in the VERTIC BWC Legislation Database. [5]

- [1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 10.181 of 17/06/1991. 'Rendering Enforceable the Convention Concerning International Carriage by Rail (COTIF) Approved at Berne on 9 May 1980. ("Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 10.181 du 17/06/1991. "Rendant exécutoire la Convention relative aux transports internationaux ferroviaires (COTIF) faite à Berne le 9 mai 1980)". [https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/9617453aed54878bc125773f003bd4d9!OpenDocument]. Accessed November 2020.
- [2] Convention Concerning International Carriage by Rail (COTIF). 2017.'Appendix 3 Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID)". [https://www.cit-rail.org/media/files/public/freight/rid_2017_e.pdf?cid=55771]. Accessed November 2020.
- [3] OTIF. 2016 "Monaco and Appendix G of the COTIF" ("La Principauté de Monaco et l'appendice G de la COTIF"). [http://otif.org/fileadmin/user_upload/otif_verlinkte_files/08_Presse/Com_Presse/CP_2016/News_15.1.2016_FR.pdf].

Accessed November 2020.

[4] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

[5] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

1.3.5 Cross-border transfer and end-user screening

1.3.5a

Is there legislation and/or regulations in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has laws, regulations, or guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. Indeed, although Monaco signed and ratified, through the Ordinance n. 10.181 of 17/06/1991, the Convention concerning International Carriage by Rail (COTIF), with Appendix 3 referring to the International Carriage of Dangerous Goods by Rail (RID), it does not restrict certain exports/imports from the country which are sensitive, controlled, strategic, or dual use [1]. Indeed, the RID Convention provides a regulatory framework to transport dangerous substances; nevertheless, there is no evidence that the RID provides for the oversight of cross-border transfer or requires end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. It only provides guidance on special packaging for infectious substances, such as "the proper shipping name for UN No. 2814 is 'INFECTIOUS SUBSTANCE, AFFECTING HUMANS'" and, it provides safety requirements for participants and personnel training [2]. In 2016, Monaco put in force all the regulations of the Convention concerning International Carriage by Rail [3]. There is no further evidence via the Ministry of Health, the Public Health Institute, the Scientific Centre of Monaco, or in the Ministry of Finances and Economy [4, 5, 6, 7]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [8] Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense. Finally, no further evidence of legislation and regulation in place could be found in the VERTIC BWC Legislation Database. [9]

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 10.181 of 17/06/1991. 'Rendering Enforceable the Convention Concerning International Carriage by Rail (COTIF) Approved at Berne on 9 May 1980'. ("Lègimonaco, Codes et Lois Monégasques. Ordonnance n. 10.181 du 17/06/1991. "Rendant exécutoire la Convention relative aux transports internationaux ferroviaires (COTIF) faite à Berne le 9 mai 1980"). [<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/9617453aed54878bc125773f003bd4d9!OpenDocument>]. Accessed November 2020.

[2] Convention Concerning International Carriage by Rail (COTIF). 2017. 'Appendix 3 Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID)'. [https://www.cit-rail.org/media/files/public/freight/rid_2017_e.pdf?cid=55771]. Accessed November 2020.

[3] OTIF. 2016 "Monaco and the appendix G of the COTIF"- "La Principauté de Monaco et l'appendice G de la COTIF" [http://otif.org/fileadmin/user_upload/otif_verlinkte_files/08_Presse/Com_Presse/CP_2016/News_15.1.2016_FR.pdf]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[6] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[7] Ministry of Finances and Economy. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Finance-and-Economy>]. Accessed November 2020.

[8] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

[9] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

Does the country have in place national biosafety legislation and/or regulations?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has in place national biosafety legislation or regulations. Indeed, although Monaco has ratified the Geneva Protocol for the Prohibition of the Use of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, it does not seem to have adopted biosafety legislation or regulations. There is no further evidence in the Princess Grace Hospital Centre, which has adopted several sanitary measures and epidemiological surveillance but does not make any reference to biosafety regulation [1, 2]. No further evidence of legislation and regulation in place could be found in the VERTIC BWC Legislation Database, the Legimonaco, Monegasque Codes and Laws, the Ministry of Health, the Public Health Institute, or the Scientific Centre of Monaco [3, 4, 5, 6, 7]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [8]. Moreover, Monaco does not have a Ministry of Agriculture. Finally, there is no further evidence in the Or.Mo.Se Plan, implemented by the Monegasque emergency Unit, which is in place to respond to all major crises, on both national and international levels, in the area of civil security or civil protection. [9]

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 15.760 of 03/04/2003. 'Rendering Enforceable the Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on their Destruction, Geneva 3 September 1992'. ("Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 15.760 du 03/04/2003. Rendant exécutoire la convention sur l'interdiction de la mise au point, de la fabrication, du stockage et de l'emploi des armes chimiques et sur leur destruction, faite à Genève le 3 septembre 1992").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/3324B3922068F1B3C125773F003CE08C!OpenDocument>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. 2016. 'Welcome Booklet for the Hospitalized Patient' - Centre Hospitalier Princesse Grace (CHPG). 'Livret d'accueil du patient hospitalisé?'. [<https://www.chpg.mc/wp-content/uploads/2017/01/chpg-accueil-int-fr-v2016-toutes-pages-72.pdf>]. Accessed November 2020.

[3] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[4] Legimonaco, Monegasque Codes and Laws. 'Laws' - Lègimonaco, Codes et Lois Monègasques. "Lois". [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[7] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[8] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

[9] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

1.4.1b

Is there an established agency responsible for the enforcement of biosafety legislation and regulations?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of an established agency responsible for the enforcement of biosafety legislation and regulations since Monaco does not have in place national biosafety legislation [1]. Further, there is no evidence of legislation and regulation in place in the VERTIC BWC Legislation Database; Legimonaco, Monegasque Codes and Laws; the Ministry of Health; the Public Health Institute; or the Scientific Centre of Monaco [1, 2, 3, 4, 5]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [6]. Moreover, Monaco does not have a Ministry of Agriculture. Finally, there is no further evidence in the Or.Mo.Se Plan, implemented by the Monegasque emergency Unit, which is in place to respond to all major crises, on both national and international levels, in the area of civil security or civil protection. [7]

[1] Legimonaco, Monegasque Codes and Laws. 'Laws'. (Lègimonaco, Codes et Lois Monègasques. "Lois").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[2] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[6] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

[7] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

1.4.2 Biosafety training and practices

1.4.2a

Does the country require biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco requires biosafety training, using a standardized, required approach such as through a common curriculum or a train-the-trainer program for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. Indeed, Monaco does not have in place national biosafety legislation, although the country has signed and ratified the Convention on biological diversity (CBD) (1992) and signed, but not ratified, the Cartagena Protocol on Biosafety (2000) [1,2,3]. Nevertheless, these frameworks

mainly deal with biosafety in the sense of threats to biodiversity and the regulation of genetically modified organisms (GMOs). They do not make any reference to pathogens, toxins, or pandemics. Moreover, although the Princess Grace Hospital Centre has adopted several sanitary measures, epidemiological surveillance, and hospital hygiene training, there is no reference to any biosafety training, even in the actual context of COVID-19 [4,5]. There is no further evidence of legislation and regulation in place via the VERTIC BWC Legislation Database; the Legimonaco, Monegasque Codes and Laws; in the Ministry of Health; in the Public Health Institute or in the Scientific Centre of Monaco [6, 7, 8, 9,10]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [11]. Monaco does not have a Ministry of Agriculture.

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 11.261 of 09/05/1994. 'Rendering Effective the Convention on Biological Diversity'. (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 11.261 du 09/05/1994. "Rendant exécutoire la Convention sur la diversité biologique").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/86769FC073BC407EC125773F003BF40B!OpenDocument>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Ordinance n. 11.261 of 09/05/1994. 'Rendering Effective the Convention on Biological Diversity'. (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 11.261 du 09/05/1994. "Rendant exécutoire la Convention sur la diversité biologique".)

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/86769FC073BC407EC125773F003BF40B!OpenDocument>]. Accessed November 2020.

[3] Convention on Biological Diversity. 'Country Profile'. [<https://bch.cbd.int/about/countryprofile.shtml?country=mc>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. 2016. 'Welcome Booklet for the Hospitalized Patient'-Centre Hospitalier Princesse Grace (CHPG). ('Livret d'accueil du patient hospitalisé?'). [<https://www.chpg.mc/wp-content/uploads/2017/01/chpg-accueil-int-fr-v2016-toutes-pages-72.pdf>]. Accessed November 2020.

[5] Prince's Government. "COVID-19 Governmental Information". [<https://covid19.mc/>]. Accessed November 2020.

[6] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[7] Legimonaco, Monegasque Codes and Laws. 'Laws'. (Lègimonaco, Codes et Lois Monègasques. "Lois").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[8] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[9] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[10] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[11] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

1.5.1 Oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research

1.5.1a

Is there publicly available evidence that the country has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual-use research. Indeed, there is no such evidence in the Scientific Centre of Monaco (CSM), a public body, that has a Medical Biology Department combining basic research and clinical applications [1]. In the scientific publications homepage, there is no evidence of research occurring on especially dangerous pathogens; most of it is related to microbiota and immunity, cancer, genetic diseases or marine ecosystems [2]. There is no further evidence via the Ministry of Health or in the Public Health Institute [3, 4, 5]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [6]. Monaco does not have a Ministry of Agriculture or a Ministry of Defense. There is no further evidence via the VERTIC BWC Legislation Database. [7]

[1] The Scientific Centre of Monaco (CSM). 'Historical'. [<https://www.centrescientifique.mc/en/article/monaco-scientific-center/historical>]. Accessed November 2020.

[2] The Scientific Centre of Monaco (CSM). 'Scientific Publications'. [<https://www.centrescientifique.mc/en/article/scientific-activities/publications-scientifiques>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Epidemiology And Hospital Hygiene". [<https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en>]. Accessed November 2020.

[6] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

[7] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

1.5.1b

Is there legislation and/or regulation requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a national policy requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. There is no evidence of legislation and regulation for research in place via the VERTIC BWC Legislation Database, Legimonaco (Monegasque Codes and Laws), the Ministry of Health, the Public Health Institute or the Scientific Centre of Monaco, which is a public research centre, specialized in medical, marine, and polar biology [1, 2, 3, 4, 5]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [6]. Monaco does not have a Ministry of Agriculture or a Ministry of Defense.

[1] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. ('Laws"-Lègimonaco, Codes et Lois Monègasques. "Lois"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[6] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.5.1c

Is there an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence of an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. Indeed, none of the Monegasque laws listed on the VERTIC Biological Weapons Convention Legislation Database deal with dual-use research [1]. There is no further evidence via Legimonaco, Monegasque Codes and Laws; in the Ministry of Health; in the Public Health Institute; or in the Scientific Centre of Monaco, which is the public research centre, specialized in medical, marine, and polar biology [2, 3, 4, 5]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [6]. Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of Defense .

[1] VERTIC. 'Monaco'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. 'Laws' (Lègimonaco, Codes et Lois Monègasques. "Lois"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[6] Confidence-Building Measures. 'Monaco'. [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

Is there legislation and/or regulation requiring the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence of a national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA against lists of known pathogens and toxins before it is sold. There is no mention of such a legislation in place via the VERTIC BWC Legislation Database; in Legimonaco, Monegasque Codes and Laws; in the Ministry of Health; in the Public Health Institute; in the Scientific Centre of Monaco, which is the public research centre, specialized in medical, marine, and polar biology; or in the Ministry of Public Works, the Environment and Urban Development [1, 2, 3, 4, 5, 6]. Although Monaco is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports [7]. Moreover, Monaco does not have a Ministry of Agriculture or a Ministry of

Defense.

[1] VERTIC. "Monaco". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/m/>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. ("Laws"-Lègimonaco, Codes et Lois Monègasques. "Lois"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[6] Prince's Government. "Ministry of Public Works, the Environment and Urban Development". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Public-Works-the-Environment-and-Urban-Development>]. Accessed November 2020.

[7] Confidence-Building Measures. "Monaco". [<https://bwc-ecbm.unog.ch/state/monaco>]. Accessed November 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

Immunization rate (measles/MCV2), 95% or greater = 2, 80-94.9% = 1, Less than 80%, or no data = 0

Current Year Score: 0

2019

World Health Organization

1.6.1b

Are official foot-and-mouth disease (FMD) vaccination figures for livestock publicly available through the OIE database?

Yes = 1, No = 0

Current Year Score: 0

2020

OIE WAHIS database

Category 2: Early detection and reporting for epidemics of potential international concern

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

Does the national laboratory system have the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests?

Evidence they can conduct 5 of the 10 core tests and these tests are named = 2, Evidence they can conduct 5 of the 10 core tests and the tests are not named = 1, No evidence they can conduct 5 of the 10 core tests = 0

Current Year Score: 0

There is not enough publicly available evidence to confirm that Monaco's national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 core tests defined by the World Health Organization (WHO). The Medical Biology Laboratory is the national laboratory system of Monaco, located in the Princess Grace Hospital Centre. It works with two private medical laboratories: La Condamine and Monte-Carlo. Together, they can test for Influenza virus, HIV, plasmodium spp. (malaria), and bacterial culture for Salmonella enteritidis serotype Typhi (typhoid). Although the type of tests performed is not specified, there is evidence that the Medical Biology Laboratory can detect and monitor influenza [1]. Moreover, according to the Ministerial Order n. 68-156 of 08/04/1968, with regard to hygiene quality procedures and bacteriological control of ice cream, salmonella tests can also be conducted [2]. Further, some of the main medical biology activities of the Medical Biology Laboratory are related to infectious serologies, microbiology (bacteriology, parasitology and mycology), and molecular biology (HIV viral load) [1]. Nevertheless, further details could not be found. It is also stipulated that certain tests not carried out on-site are sent to qualified contacts and specialist labs outside the national territory, such as the University Hospital Centre in Nice and Marseille, both located in France [3]. Finally, there is evidence that La Condamine and Monte-Carlo, the two private medical laboratories that work with the Medical Biology Laboratory, can test for malaria (search conducted for Hematozoa) [4]. Nevertheless, there is no evidence that Monaco has the capacity to detect some diseases such as Ebola, since in 2014, during the Ebola epidemic in West Africa, Monaco announced that if a patient with suspected Ebola was detected, he/she will be transferred to the Infectious Diseases Department of the University Hospital Centre in Marseille, the leading French health facility for the southern region (No longer available online, although its existence can be confirmed through this link <https://twitter.com/GovMonaco/status/521911984078725120>) [5]. Finally, there is no further evidence or even mention of the 10 WHO-defined core tests in the International Sanitary Regulation (2005), signed and ratified in 2011 and with some measures implemented in 2017 by Monaco [6]. There is no further evidence via the Ministry of Health or in the Public Health Institute [7, 8].

[1] Prince's Government. "An Exemplary Public Health system". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Ministerial Order n. 68-156 of 08/04/1968. "Concerning Hygiene Quality Procedures and Bacteriological Control of Ice Creams". (Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 68-156 du 08/04/1968. "Concernant la qualité hygiénique et le contrôle bactériologique des glaces et crèmes glacées"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/6FD93E9E39C43236C125773F003871A6!OpenDocument>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre (CHPG). "Biology Laboratory". [<https://www.chpg.mc/portfolio/biology-laboratory/?lang=en>]. Accessed November 2020.

- [4] Medical Biology Laboratory, Analysis (Laboratoire de Biologie Médicale. "Analyses"). [http://labomonaco.com/analyse/memo]. Accessed November 2020.
- [5] Prince's Government. 2014. "Ebola Viral Haemorrhagic Fever". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/Ebola-Viral-Haemorrhagic-Fever]. Accessed November 2020.
- [6] Legimonaco, Monegasque Codes and Laws. 2017. Ordinance n. 6.387 of 09/05/2017. "Referring to the Implementation of the International Health Regulations (2005) to Fight the International Spread of Diseases". (Lègimonaco, Codes et Lois Monégasques. Ordonnance n. 6.387 du 09/05/2017. "Relative à la mise en œuvre du règlement sanitaire international (2005) en vue de lutter contre la propagation internationale des maladies"). [https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/C07CA3B7B281D153C12581390032B99A!OpenDocument]. Accessed November 2020.
- [7] Prince's Government. "Ministry of Health and Social Affairs". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs]. Accessed November 2020.
- [8] The Princess Grace Hospital Centre. [https://www.chpg.mc/?lang=en]. Accessed November 2020.
- [9] World Health Organization (WHO). 'Monaco'. [https://extranet.who.int/sph/country/312]. Accessed November 2020.

2.1.1b

Is there a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing?

Yes, there is evidence of a plan, and it includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing = 2, Yes, there is evidence of a plan, but there is insufficient evidence that it includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing = 1, No evidence of a plan = 0

Current Year Score: 0

There is no publicly available evidence that the country has a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. There is no such evidence via the Ministry of Health or in the Public Health Institute [1,2]. Monaco has a website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. However, there is no evidence of a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. [3] Monaco does not have a Ministry of Agriculture.

- [1] Prince's Government. "Ministry of Health and Social Affairs". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs]. Accessed November 2020.
- [2] The Princess Grace Hospital Centre. [https://www.chpg.mc/?lang=en]. Accessed November 2020.
- [3] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

2.1.2 Laboratory quality systems

2.1.2a

Is there a national laboratory that serves as a reference facility which is accredited (e.g., International Organization for Standardization [ISO] 15189:2003, U.S. Clinical Laboratory Improvement Amendments [CLIA])?

Yes = 1, No = 0

Current Year Score: 0

There is not enough publicly available evidence to confirm that the national reference facility is accredited. Indeed, the French High Authority of Health (HAS) has awarded an A to the Princess Grace Hospital Center [1]. An "A" implies that the HAS does not have any recommendation for improvement and that no risk situation was found in the hospital [2]. Nevertheless, this accreditation focus on laboratory quality, and among all the indicators taken into account for this certification, none of them refers to infectious disease risk, apart from the infection associated with health care, which is effectively taken into account [3]. On the other hand, the private laboratories, La Condamine and Monte-Carlo, that work in close collaboration with the Princess Grace Hospital Center, have the international standard ISO 15189 accreditation [4]. There is no further evidence via the Princess Grace Hospital Center or in the Ministry of Health and Social Affairs [5, 6]. Moreover, Monaco does not have a Ministry of Agriculture.

[1] The Princess Grace Hospital Centre (CHPG). "General Presentation". [<https://www.chpg.mc/le-chpg/>]. Accessed November 2020.

[2] High Health Authority. 2015. "Princess Grace Hospital Certification Report" (Haute Autorité de santé. "Rapport De Certification Centre Hospitalier Princesse Grace"). [https://www.chpg.mc/wp-content/uploads/2016/12/30152_rac_vd.pdf]. Accessed November 2020.

[3] High Health Authority. "Indicators in Brief" (Haute Autorité de santé. "Les indicateurs en bref"). [https://www.has-sante.fr/portail/jcms/c_2625243/fr/les-indicateurs-en-bref]. Accessed December 2018.

[4] Laboratory of Medical Biology. "Quality Policy". [<https://www.labomonaco.com/qualite>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[6] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

2.1.2b

Is there a national laboratory that serves as a reference facility which is subject to external quality assurance review?

Yes = 1 , No = 0

Current Year Score: 0

There is not enough publicly available evidence to confirm that the national laboratory that serves as a reference facility is subjected to external quality assurance review. The only available evidence is that the Princess Grace Hospital Center is subjected to review from the French High Authority of Health (HAS) [1]. "The HAS is a French independent public scientific authority with an overall mission of contributing to the regulation of the healthcare system by improving health quality and efficiency". Its mission is to review the health care quality of healthcare organizations following specific validation criteria [2]. Nevertheless, the HAS is responsible for EQA in the hospital as a whole and not specifically in the laboratory. There is no further evidence via the Ministry of Health or in the Public Health Institute [3, 4]. In addition, Monaco does not have a Ministry of Agriculture.

[1] High Health Authority. 2015. "Princess Grace Hospital Certification Report" (Haute Autorité de santé. "Rapport De Certification Centre Hospitalier Princesse Grace"). [https://www.chpg.mc/wp-content/uploads/2016/12/30152_rac_vd.pdf]. Accessed November 2020.

[2] High Health Authority. "Healthcare Quality and Safety Indicators". [https://www.has-sante.fr/portail/jcms/c_2044563/en/healthcare-quality-and-safety-indicators]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Monaco has a nationwide system for transporting specimens from the site of collection to a laboratory for testing; however, the facility is based out of Monaco, and involves a French private laboratory. According to the Medical Biology Laboratory of Monaco, some tests are carried out with its laboratory partner, Laboratoire CERBA, located in Paris, France. In this sense, Laboratoire CERBA collects and processes samples from Monaco and ensures "the supply of sampling equipment, sample collection at local laboratory packaging and transport compliant with pre-analytical conditions, as well as certified transport and temperature tracking" [1]. This specimen transport system seems to cover the whole country, since Monaco is a very small country, with a surface of only 2 km² and one main public hospital for epidemiological tests and primary cares: the Medical Biology Laboratory of Monaco, within the Princess Grace Hospital Center.

There is evidence that some tests are conducted within the country, and that there is a system in place to transfer samples from different private laboratories. [2] There is no further information of this specimen transport system via the Princess Grace Hospital Center or the Ministry of Health and Social Affairs [3,4]. Moreover, Monaco does not have a Ministry of Agriculture.

[1] Cerba. "A Historical Reference Laboratory Focused On the Future". [<https://www.lab-cerba.com/en/home/nous-connaître/qui-sommes-nous-cerba.html>]. Accessed November 2020.

[2] Laboratories of Medical Biology. "Quality Guideline". [https://www.labomonaco.com/pdf/Manuel_Qualite.pdf]. Accessed November 2020

[3] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

Is there a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak?

Yes = 2 , Yes, but there is evidence of gaps in implementation = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. There is no evidence of such a plan, however, there is evidence that the Laboratory P3 in the Scientific Center of Monaco (CSM) is being used to scale-up testing during an outbreak. Also, to relieve pressure on Princess Grace Hospital all PCR testing are sent from the hospital to the CSM, and other private laboratories [1] There is no evidence of such a plan in the several ordinances that

have been issued to fight COVID-19, in the CSM website or in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco [2,3, 4] There is no further evidence via the Princess Grace Hospital Center or the Ministry of Health and Social Affairs [5,6]. Moreover, Monaco does not have a Ministry of Agriculture.

[1] Prince's Government. November 2020. "COVID-19: H.S.H. Prince Albert II unveils facilities that will increase the Principality's independent PCR testing capacity". [<https://en.gouv.mc/Portail-du-Gouvernement/A-la-Une-du-Portail/COVID-19-H.S.H.-Prince-Albert-II-unveils-facilities-that-will-increase-the-Principality-s-independent-PCR-testing-capacity>]. Accessed November 2020.

[2] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

[3] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[4] Prince's Government. "Official Bulletin of the Principality".

[[https://journalde Monaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journalde Monaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[6] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

Is there evidence that the country is conducting ongoing event-based surveillance and analysis for infectious disease?

Yes, there is evidence of ongoing event-based surveillance and evidence that the data is being analyzed on a daily basis = 2,
Yes, there is evidence of ongoing event-based surveillance, but no evidence that the data are being analyzed on a daily basis = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country is conducting ongoing event-based surveillance and analysis for infectious diseases. The Hyogo Framework for Action (HFA) is a document endorsed by the UN General Assembly that identifies, assesses, and monitors disaster risks reduction mechanisms within the countries. The HFA issued a report for Monaco that states that at the national level, a technical commission conformed by various state services was created to mitigate natural and technological risks. This commission participates in the inventory of natural hazards threatening Monaco and identifies possible vulnerabilities. Nevertheless, no reference to event-based surveillance (EBS) could be found [1] and although the responsibilities of this commission appear to be similar to those of an EBS, this could not be confirmed since no further evidence about this commission could be found on government websites. Moreover, in the Princess Grace Hospital Centre (CHPG), no reference to EBS was made; it is only mentioned that "monitoring for emerging diseases (such as influenza pandemics and Severe Acute Respiratory Syndrome) is continuous" [2]. No further evidence could be found via the Ministry of Health or the Fire and Emergency Service or in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco [3, 4,5]. There are no publicly available studies and articles on this subject. Further, Monaco does not have a Ministry of Agriculture.

[1] Hyogo Framework for Action. 2013. "Monaco".

[https://www.preventionweb.net/files/31700_mco_NationalHFAprogress_2011-13.pdf]. Accessed November 2020.

[2] Prince's Government. "An Exemplary Public Health System". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[5] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

2.3.1b

Is there publicly available evidence that the country reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country reported a potential PHEIC to the World Health Organization (WHO) within the last two years. There is no publicly available evidence that the country reported COVID19 as a PHEIC to the WHO before when it was declared a pandemic by the WHO. No evidence could be found on the WHO Disease Outbreak News page, the Ministry of Health, the Fire and Emergency Service, or the Princess Grace Hospital Center [1, 2, 3, 4].

[1] World Health Organization (WHO). "Monaco". [<http://www.who.int/csr/don/archive/country/mco/en/>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre (CHPG). "General Presentation". [<https://www.chpg.mc/le-chpg/>]. Accessed November 2020.

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

Does the government operate an electronic reporting surveillance system at both the national and the sub-national level?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco operates an electronic reporting surveillance system at both the subnational and national levels for epidemics. There is only evidence that in October 2018, Monaco launched an Electronic Patient Records (DPI), where all patient records will be stored [1]. In January 2020, there is evidence that this system is advancing, as the foundations are already in place, the project will continue throughout 2020 and will be completed by the end of the year, with new services offered to patients. However, there is no evidence that it will also be an electronic

reporting surveillance system[2] This system has been tested in the midst of the coronavirus crisis, as there is evidence that "to cut the time between obtaining a test result and communicating it to the patient, the Digital Transition Office has worked with the teams at Roche, Princess Grace Hospital and the Scientific Center of Monaco (CSM) to digitalise and automate the testing process. [3] Finally, a World Health Organization (WHO) document of 2016 states that the Government of Monaco is implementing a health and environment surveillance system. [4] There are no further details on this system in the Department of Health Affairs, the Fire and Emergency Service, or the Princess Grace Hospital Center [5,6,7].

[1] Prince's Government. 17 October 2018. "e-CHPG Launch of Electronic Patient Records". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/e-CHPG-Launch-of-Electronic-Patient-Records>]. Accessed November 2020.

[2] Prince's Government. January 2020. "New Year Address at the CHPG - The CHPG - A Wealth of Talents". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/New-Year-Address-at-the-CHPG-The-CHPG-A-Wealth-of-Talents>]. Accessed November 2020.

[3] Prince's Government. November 2020. "COVID-19: H.S.H. Prince Albert II unveils facilities that will increase the Principality's independent PCR testing capacity". [<https://en.gouv.mc/Portail-du-Gouvernement/A-la-Une-du-Portail/COVID-19-H.S.H.-Prince-Albert-II-unveils-facilities-that-will-increase-the-Principality-s-independent-PCR-testing-capacity>]. Accessed November 2020.

[4] World Health Organization (WHO). October 2016. "Meeting Report of the Third High-level Meeting of Small Countries". [http://www.euro.who.int/__data/assets/pdf_file/0020/334271/Meeting-report-of-the-Third-High-level-Meeting-of-Small-Countries-Monaco.pdf?ua=1]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[7] The Princess Grace Hospital Centre (CHPG). "General Presentation". [<https://www.chpg.mc/le-chpg/>]. Accessed November 2020.

2.3.2b

Does the electronic reporting surveillance system collect ongoing or real-time laboratory data?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that this system collects ongoing/real-time laboratory data as there is no evidence that Monaco operates an electronic reporting surveillance system at both the subnational and national levels for epidemics. . There are no such evidence in the Department of Health Affairs, the Fire and Emergency Service, or the Princess Grace Hospital Center [1,2,3].

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre (CHPG). "General Presentation". [<https://www.chpg.mc/le-chpg/>]. Accessed November 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

Electronic health records are commonly in use = 2, Electronic health records are not commonly in use, but there is evidence they are used = 1, No evidence electronic health records are in use = 0

Current Year Score: 1

There is publicly available evidence that electronic health records (EHR) are being use, although there is insufficient evidence to estimate how common they are. Monaco has four health establishments: the Princess Grace Hospital Centre, which offers care services for the entire population and deals with epidemic diseases; the Cardio-thoracic Centre of Monaco (CCM); the Medical and Surgical Orthopaedic institute of Monaco (IM2S); and the Monaco Private Dialysis Centre [1]. In the Princess Grace Hospital Center (CHPG), the main hospital of Monaco, sources suggest that health data is systematically computerized [2]. In the Cardio-Thoracic Center of Monaco, EHRs are also commonly used [3]. Whether or not electronic health records are used at IM2S could not be confirmed via publicly available evidence. However, a new EHR system for Monaco is in the works. In October 2018, the Electronic Patient Records (DPI) project was launched as the first step towards a digital hospital, with all patient records computerized and communicable, both internally and city-wide [4]. In January 2020, there is evidence that this system is advancing, as the foundations are already in place, the project will continue throughout 2020 and will be completed by the end of the year, with new services offered to patients. [5] There is also evidence that this system has been tested in the midst of the coronavirus crisis. [6]

[1] World Health Organization (WHO). October 2016. "Meeting Report of the Third High-level Meeting of Small Countries". [http://www.euro.who.int/__data/assets/pdf_file/0020/334271/Meeting-report-of-the-Third-High-level-Meeting-of-Small-Countries-Monaco.pdf?ua=1]. Accessed November 2020.

[2] Princess Grace Hospital Center. "An Outstanding Hospital, Serving Your Local Area". [<https://www.chpg.mc/wp-content/uploads/2017/07/chpg-accueil-int-uk.pdf>]. Accessed November 2020.

[3] Cardio-Thoracic Center of Monaco. [<http://www.ccm.mc/pdf/CCMlivret-accueilFR.pdf>]. Accessed November 2020.

[4] Prince's Government. 17 October 2018. "e-CHPGóLaunch of Electronic Patient Records". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/e-CHPG-Launch-of-Electronic-Patient-Records>]. Accessed November 2020.

[5] Prince's Government. January 2020. "New Year Address at the CHPG - The CHPG - A Wealth of Talents". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/New-Year-Address-at-the-CHPG-The-CHPG-A-Wealth-of-Talents>]. Accessed November 2020.

[6] Prince's Government. November 2020. "COVID-19: H.S.H. Prince Albert II unveils facilities that will increase the Principality's independent PCR testing capacity". [<https://en.gouv.mc/Portail-du-Gouvernement/A-la-Une-du-Portail/COVID-19-H.S.H.-Prince-Albert-II-unveils-facilities-that-will-increase-the-Principality-s-independent-PCR-testing-capacity>]. Accessed November 2020.

2.4.1b

Does the national public health system have access to electronic health records of individuals in their country?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the national public health system of Monaco has access to electronic health records (EHRs) of individuals in their country. Although there is evidence that in October 2018, Monaco launched an Electronic Patient Records (DPI), where all patient records will be stored, there is no information on whether the government has access to the patient information stored electronically. [1]. In January 2020, there is evidence that this system is advancing, as the foundations are already in place, the project will continue throughout 2020 and will be completed by the end of the year, with new services offered to patients. [2] This system has been tested in the midst of the coronavirus crisis, as there is evidence that "to cut the time between obtaining a test result and communicating it to the patient, the Digital Transition Office has worked with the teams at Roche, Princess Grace Hospital and the Scientific Center of Monaco (CSM) to digitalise and automate the testing process. [3] Finally, a World Health Organization (WHO) document of 2016 states that the Government of Monaco is implementing a health and environment surveillance system. [4] There are no further details on this system in the Department of Health Affairs, the Fire and Emergency Service, or the Princess Grace Hospital Center [5,6,7].

[1] Prince's Government. 17 October 2018. "e-CHPG Launch of Electronic Patient Records". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/e-CHPG-Launch-of-Electronic-Patient-Records>]. Accessed November 2020.

[2] Prince's Government. January 2020. "New Year Address at the CHPG - The CHPG - A Wealth of Talents". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/New-Year-Address-at-the-CHPG-The-CHPG-A-Wealth-of-Talents>]. Accessed November 2020.

[3] Prince's Government. November 2020. "COVID-19: H.S.H. Prince Albert II unveils facilities that will increase the Principality's independent PCR testing capacity". [<https://en.gouv.mc/Portail-du-Gouvernement/A-la-Une-du-Portail/COVID-19-H.S.H.-Prince-Albert-II-unveils-facilities-that-will-increase-the-Principality-s-independent-PCR-testing-capacity>]. Accessed November 2020.

[4] World Health Organization (WHO). October 2016. "Meeting Report of the Third High-level Meeting of Small Countries". [http://www.euro.who.int/__data/assets/pdf_file/0020/334271/Meeting-report-of-the-Third-High-level-Meeting-of-Small-Countries-Monaco.pdf?ua=1]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[7] The Princess Grace Hospital Centre (CHPG). "General Presentation". [<https://www.chpg.mc/le-chpg/>]. Accessed November 2020.

2.4.1c

Are there data standards to ensure data is comparable (e.g., ISO standards)?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence of statements about adoption of data standards. Indeed, although the newly created Digital Government Department (in July 2018) is responsible for ensuring the overall coherence of the administration's online landscape and for organizing and directing the consultation necessary for the dissemination of standards and general rules related to the accessibility and use of digital services, there is no evidence of adoption of data standards [1]. Further evidence could not be found in the Interministerial Delegation for the Digital Transition, which is responsible for supervising and coordinating all the new departments to improve the quality, efficiency, effectiveness, and reliability of services provided to public entities and users. Although the aim of this delegation is to ensure the quality and coherence of all the data collected, no information of adoption of data standards was available [2]. No further evidence could be found in the press release for

the launch of Electronic Patient Records (the only details available about these records) in the new hospital project, in the Ministry of Health, or in the Public Health Institute [3, 4, 5, 6].

[1] Prince's Government. "Digital Government Department". [<https://en.gouv.mc/Government-Institutions/The-Government/The-Ministry-of-State/General-Secretariat-of-the-Government/Digital-Services-Department>]. Accessed November 2020.

[2] Prince's Government. The Interministerial Delegation for the Digital Transition - Gouvernement Princier ("Délégation Interministérielle chargée de la Transition Numérique"). [<https://en.gouv.mc/Government-Institutions/The-Government/The-Ministry-of-State/Delegation-Interministerielle-chargee-de-la-Transition-Numerique>]. Accessed November 2020.

[3] Prince's Government. 17 October 2018. "e-CHPGó Launch of Electronic Patient Records". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/e-CHPG-Launch-of-Electronic-Patient-Records>]. Accessed November 2020.

[4] Prince's Government. "The New Hospital Project". [<http://www.nouvelhopital.gouv.mc/>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

2.4.2 Data integration between human, animal, and environmental health sectors

2.4.2a

Is there evidence of established mechanisms at the relevant ministries responsible for animal, human, and wildlife surveillance to share data (e.g., through mosquito surveillance, brucellosis surveillance)?

Yes = 1, No = 0

Current Year Score: 0

There is insufficient publicly available evidence of established mechanisms at the relevant ministries responsible for animal, human, and wildlife surveillance to share data. To meet the requirements of the International Health Regulations, adopted and made enforceable in Monaco by Sovereign Ordinance no. 3.153 of 24 February 2011, a national platform was created. The aim of the platform is to provide a coordination mechanism between different partners to set up a consultative process on disaster reduction and identification and assessment of natural risks. The national platform is built around the focal point of the Hyogo Framework for Action (HFA) and includes members of the Technical Committee for Health, Safety, and Environment as well as representatives of the Ministry of Internal Affairs and the Ministry of Foreign Affairs and members of the Scientific Center of Monaco [1]. In this sense, relevant ministries are represented in this national platform, enabling cooperation and potentially sharing information. However, no further evidence on the mechanism and how it provides for sharing of surveillance data between animal, human, and environmental health surveillance could be found in the Directorate of Health Action, the Ministry of Health, the Public Health Institute, the Fire & Emergency Service, or in the Epidemiology and Hospital Hygiene Department [2, 3, 4, 5, 6].

[1] Hyogo Framework for Action. 2013. "Monaco".

[https://www.preventionweb.net/files/31700_mco_NationalHFAProgress_2011-13.pdf]. Accessed November 2020.

[2] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015.

"Establishing a Directorate of Health Action" (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire").

[<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[6] The Princess Grace Hospital Centre (CHPG). "Epidemiology and Hospital Hygiene".

[<https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en>]. Accessed November 2020.

2.4.3 Transparency of surveillance data

2.4.3a

Does the country make de-identified health surveillance data on infectious diseases publicly available via reports (or other format) on government websites (such as the Ministry of Health, Ministry of Agriculture, or similar)?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco makes de-identified health surveillance data on disease outbreaks publicly available. The Monaco Statistics Agency is responsible for collecting statistical data from state services, the municipality, public institutions, companies, and individuals. It presents an annual report that collects data from different sectors, including health. Nevertheless, it does not provide de-identified health surveillance data on disease outbreaks but only on diseases such as lung cancer and respiratory and circulatory problems [1]. There is no further evidence via the Monaco Statistics Agency, the Ministry of Health, the Public Health Institute, in the Scientific Centre of Monaco [2, 3, 4, 5].

[1] Monaco Statistics. "2020 Report". [<https://www.gouv.mc/Action-Gouvernementale/L-Economie/Analyses-et-Statistiques/Publications/Monaco-en-Chiffres-2020>]. Accessed November 2020.

[2] Monaco Statistics. [<https://www.imsee.mc/>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

2.4.3b

Does the country make de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites (such as the Ministry of Health, or similar)?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that the country makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites (such as the Ministry of Health, or similar). Monaco developed a website solely dedicated to information on COVID-19, <https://covid19.mc/>. It publishes in a daily basis, the daily number of new positive cases; the number of people that are being treated at the hospital, the ones that are in intensive care, etc. [1]

[1] Prince's Government. November 2020. "COVID-19: Three New Positive Cases and Two Recoveries on Friday 27 November". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Coronavirus-Covid-2019/Actualites/COVID-19->

Three-New-Positive-Cases-and-Two-Recoveries-on-Friday-27-November]. Accessed November 2020.

2.4.4 Ethical considerations during surveillance

2.4.4a

Is there legislation and/or regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Monaco has laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. In Ordinance (n. 3.153 of 24/02/2011, rendering effective the International Health Regulation (2005) adopted by the fifty-eighth World Health Assembly May 23, 2005), Article 43, safeguards the confidentiality of identifiable health information for individuals [1]. Moreover, the Princess Grace Hospital Centre, which is the main hospital of Monaco for primary care and epidemic detection, has a data protection policy to ensure the protection of all health data collected, including health information used for surveillance activities within the Hospital [2]. Finally, the law. n°1.165 of 23/12/1993 related to the protection of nominative information, protects in the Chapter III, Article 18, individual health records that are used for the purposes of preventive medicine, research medical diagnosis, care or treatment administration or health service management [3]. Monaco has a Monegasque authority for the protection of personal data, which ensures that any data processing operation respects the confidentiality of identifiable health information [4]. Also, the country adheres to the GDPR legislation. [5]

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 3.153 of 24/02/2011. "Rendering Effective the International Health Regulations (2005) Adopted by the Fifty-eighth World Health Assembly Effective on 23 May 2005" (Lègimonaco, Codes et Lois Monégasques. Ordonnance n. 3.153 du 24/02/2011. "Rendant exécutoire le Règlement Sanitaire International (2005) adopté par la cinquante-huitième Assemblée Mondiale de la Santé le 23 mai 2005").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/B1754B7932FCCE13C125787A00322CE4!OpenDocument>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. "Data Protection Policy" (Le centre hospitalier Princesse Grace. "Politique de protection des données personnelles"). [<https://www.chpg.mc/politique-de-protection-des-donnees-personnelles/>].

Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. Law. n° 1.165 of 23/12/1993. 'Related to the Protection of Nominative Information' (Loi. n° 1.165 du 23/12/1993. 'Relative à la protection de l'information nominative').

[<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/28a1a1d90812e249c125773f003beebb!OpenDocument>]. Accessed November 2020.

[4] Monegasque Authority for the Protection of Personal Data. [<https://www.ccin.mc/en/ccin/nos-missions>]. Accessed November 2020.

[5] Prince's Monaco. "Protection of personal data". [<https://en.gouv.mc/Policy-Practice/A-Modern-State/Protection-of-personal-data>]. Accessed January 2021.

2.4.4b

Is there legislation and/or regulations safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, include mention of protections from cyber attacks (e.g., ransomware)?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Monaco has laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, including mention of protection from cyber attacks. The Ordinance (n. 3.153 of 24/02/2011, rendering effective the International Health Regulation (2005) adopted by the fifty-eighth World Health Assembly on May 23, 2005) [1]; the Princess Grace Hospital Centre, data protection policy [2]; Law. n° 1.165 of 23/12/1993 related to the protection of nominative information; [3] and the Monegasque authority for the protection of personal data [4] do not include any mention of protection from cyber attacks. Nevertheless, Monaco has a National Strategy for Digital Security that ensures "the security of critical infrastructures and protect the confidentiality of sensitive data for individuals and businesses and combat cybercrime" [5]. It makes specific references to health data protection, although it does not refer to health surveillance activities. Moreover, the Principality of Monaco joined in 1990, the Partially Open Agreement concerning prevention, protection and organization of aid against natural and technological risks (EUR-OPA). Within this agreement, in 2017, Monaco signed and ratified the Convention on cybercrime, dealing particularly with violations of network security. "Its main objective is to pursue a common criminal policy aimed at the protection of society against cybercrime, especially by adopting appropriate legislation and fostering international co-operation" [6].

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 3.153 of 24/02/2011. "Rendering Effective the International Health Regulations (2005) Adopted by the Fifty-eighth World Health Assembly effective on 23 May 2005" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 3.153 du 24/02/2011. "Rendant exécutoire le Règlement Sanitaire International (2005) adopté par la cinquante-huitième Assemblée Mondiale de la Santé le 23 mai 2005").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/B1754B7932FCCE13C125787A00322CE4!OpenDocument>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre. "Data Protection Policy" (Le centre hospitalier Princesse Grace. "Politique de protection des données personnelles". [<https://www.chpg.mc/politique-de-protection-des-donnees-personnelles/>]. Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. Law. n° 1.165 of 23/12/1993. 'Related to the Protection of Nominative Information' (Loi. n° 1.165 du 23/12/1993. 'Relative à la protection de l'information nominative').

[<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/28a1a1d90812e249c125773f003beebb!OpenDocument>]. Accessed November 2020.

[4] Monegasque authority for the protection of personal data. [<https://www.ccin.mc/en/ccin/nos-missions>]. Accessed November 2020.

[5] Monegasque Agency for Digital Security. "The National Strategy for Digital Security" (Agence Monegasque de Sécurité Numérique. "Stratégie nationale pour la sécurité du numérique").

[https://www.gouv.mc/content/download/407270/4603010/file/AMSN_RapportSNN.pdf]. Accessed November 2020.

[6] Council of Europe. 2001. "Details of Treaty No.185-Convention on Cybercrime".

[<https://www.coe.int/en/web/conventions/search-on-states/-/conventions/treaty/185>]. Accessed November 2020.

2.4.5 International data sharing

2.4.5a

Has the government made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region?

Yes, commitments have been made to share data for more than one disease = 2, Yes, commitments have been made to share data only for one disease = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the government made a commitment via public statements, legislation, and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region for one or more diseases. Indeed, according to Monaco's Hyogo Framework for Action Progress, there are no protocols in place to share surveillance data [1]. Nevertheless, in 1990, the Principality of Monaco joined the Partially Open Agreement concerning prevention, protection and organization of aid against natural and technological risks (EUR-OPA). The main objective of this agreement was to activate cooperation between Member States, by calling on all known resources and knowledge, so as to ensure prevention and protection in the event of any major risk, and to organize the necessary aid as efficiently as possible [2]. Within this agreement, in 2007, Monaco signed and ratified the "European Outline Convention on Transfrontier Co-operation between Territorial Communities or Authorities". This agreement encourages and facilitates co-operation in the region for mutual assistance in emergencies (one among other objectives). In this agreement, transfrontier co-operation implies any concerted action (including exchange of information between States) designed to reinforce and foster neighbourly relations between territorial communities or authorities within the jurisdiction of two or more Contracting Parties and the conclusion of any agreement and arrangement necessary for this purpose" [3]. Nevertheless, no specific reference to surveillance data sharing during a public health emergency was found. Moreover, the Convention facilitates and establishes a legal framework for the conclusion of agreements between territorial authorities; in this sense, currently, there is no agreement on surveillance data sharing with other countries [4]. Finally, Monaco has a very close relationship with France and has a Franco-Monegasque Joint Social Security Commission. Within this commission, efforts are made to enable the automated system for processing the treatment forms they issue for patients insured by French companies, and to access electronic medical records and enable interoperability between the French and Monegasque systems, which would benefit patients likely to receive treatment in both countries. However, these discussions are independent of any public health emergency. [5] There is no further evidence in the Ministry of Health or in the Public Health Institute [6,7].

[1] Hyogo Framework for Action. 2013. "Monaco".

[https://www.preventionweb.net/files/31700_mco_NationalHFAProgress_2011-13.pdf]. Accessed November 2020.

[2] The Scientific Centre of Monaco (CSM). "Historical". [<https://www.centrescientifique.mc/en/article/monaco-scientific-center/historical>]. Accessed November 2020.

[3] Council of Europe. 1980. "Details of Treaty No.106-European Outline Convention on Transfrontier Co-operation between Territorial Communities or Authorities". [<https://www.coe.int/en/web/conventions/search-on-states/-/conventions/treaty/106>]. Accessed November 2020.

[4] Legimonaco, Monegasque Codes and Laws. "Laws" (Légimonaco, Codes et Lois Monégasques. "Lois").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[5] Prince's Government. January 2020. "Meeting of Franco-Monegasque Joint Social Security Commission".

[<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/Meeting-of-Franco-Monegasque-Joint-Social-Security-Commission>]. Accessed November 2020.

[6] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[7] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

Is there a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency?

Yes, there is evidence that the national government supports sub-national systems to prepare for future public health emergencies = 2, Yes, there is evidence that the national government supports sub-national systems, but only in response to active public health emergencies = 1, No = 0

Current Year Score: 0

There is insufficient publicly available evidence that a national system is in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of an active or future public health emergency. In April 2020, the government announced that the use of digital contact-tracing via mobile phone was being considered. However, it is based on a voluntary basis, using the limited connectivity provided by Bluetooth technology. The Data Protection Authority of Monaco (CCIN) is involved in consideration of this initiative. [1] There is no further evidence via the Princess Grace Hospital Center or the Ministry of Health and Social Affairs to confirm that this system has already been implemented. [2,3] Finally, Monaco has a website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. However, there is no mention of contact tracing. [4]

[1] Prince's Government. April 2020. "Didier Gamerdingier today discusses masks, tests and digital tracing - All residents of Principality to receive preventive masks". [<https://en.gouv.mc/Policy-Practice/Coronavirus-Covid-2019/Actualites/Didier-Gamerdingier-today-discusses-masks-tests-and-digital-tracing-All-residents-of-Principality-to-receive-preventive-masks>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

2.5.1b

Does the country provide wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention?

Yes, both economic support and medical attention are provided = 2, Yes, but only economic support or medical attention is provided = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention. There is only evidence that in the midst of the coronavirus crisis, the country put in place a Home Patient Follow-Up Centre which provides medical attention to those who had tested positive for COVID-19 and are suffering from milder forms of the disease, as well as symptomatic patients who had not been tested and whose health condition did not require them to be hospitalised. However, these are temporary provisions put in place for COVID-19, there is not enough evidence to confirm that these can be applicable for all infectious diseases outbreaks. The medical service provided in the case of COVID-19 is managed by the Ministry of Health and Social Affairs and provides tele-consultations, but also help with shopping and delivers meals to their homes. A Counselling & Wellbeing Unit is also active. [1] In addition, economic support is also provided, such as a deferral of payment of taxes; staggering the payment of the social security contribution and staggering the payment of the rent. They are only valid in the context of COVID-19 [2] Further evidence could not be found via the Princess Grace Hospital Center or the Ministry of Health and Social Affairs. [3,4]

[1] Prince's Government. May 2020. "Home Patient Follow-Up Centre moves to standby mode". [<https://en.gouv.mc/A-la-Une-du-Portail/Home-Patient-Follow-Up-Centre-moves-to-standby-mode>]. Accessed November 2020.

[2] Info Covid. "Business". [<https://covid19.mc/en/thematiques/economie/>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

2.5.1c

Does the country make de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar)?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar). There is no such evidence via the Princess Grace Hospital Center or the Ministry of Health and Social Affairs. [1,2] Monaco also has a website dedicated to the coronavirus disease, however, such information could not be found, neither could it be found in daily reports. [3,4]

[1] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] Prince's Government. "Info COVID19". [<https://covid19.mc/>]. Accessed November 2020.

[4] Prince's Government. January 2021 "COVID-19: 4 new positive cases and 20 recoveries on Sunday 10 January". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Coronavirus-Covid-2019/Actualites/COVID-19-4-new-positive-cases-and-20-recoveries-on-Sunday-10-January>]. Accessed November 2020.

2.5.2 Point of entry management

2.5.2a

Is there a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a public health emergency?

Yes, plan(s)/agreement(s) are in place to prepare for future public health emergencies = 2, Yes, but plan(s)/agreement(s) are in place only in response to active public health emergencies = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of a future or active public health emergency. There is no such evidence via the Princess Grace Hospital Center or the Ministry of Health and Social Affairs. [1,2] Monaco also has a website dedicated to the coronavirus disease, however, such information could not be found. [3] Finally, there is no such evidence in the Official

Bulletin of the Principality, where are published all the laws and ordinances for Monaco [4]

[1] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] Public service. "COVID-19". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

[4] Prince's Government. "Official Bulletin of the Principality".

[[https://journalde Monaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journalde Monaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

2.6 EPIDEMIOLOGY WORKFORCE

2.6.1 Applied epidemiology training program, such as the field epidemiology training program, for public health professionals and veterinarians (e.g., Field Epidemiology Training Program [FETP] and Field Epidemiology Training Program for Veterinarians [FETPV])

2.6.1a

Does the country meet one of the following criteria?

- Applied epidemiology training program (such as FETP) is available in country
- Resources are provided by the government to send citizens to another country to participate in applied epidemiology training programs (such as FETP)

Needs to meet at least one of the criteria to be scored a 1 on this measure. , Yes for both = 1 , Yes for one = 1 , No for both = 0

Current Year Score: 1

Monaco has access to the European Programme for Intervention Epidemiology Training (EPIET). It is a two-year training program consisting of two distinct pathways: field epidemiology (EPIET) and public health microbiology (EUPHEM). It was created in 1995 and is available to the whole European Union (EU) and European Economic Area (EEA) member states. Its main objective is to strengthen the European network of public health professionals through use of shared standards and methods, good practices, and common public health objectives [1].

[1] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "European Programme for Intervention Epidemiology Training (EPIET) and the European Programme for Public Health Microbiology Training (EUPHEM)". [<https://www.tephinet.org/training-programs/european-programme-for-intervention-epidemiology-training-epiet-and-the-european>]. Accessed November 2020.

2.6.1b

Are the available field epidemiology training programs explicitly inclusive of animal health professionals or is there a specific animal health field epidemiology training program offered (such as FETPV)?

Yes = 1 , No = 0

Current Year Score: 1

Monaco has access to the European Programme for Intervention Epidemiology Training (EPIET). These are available to all members of the European Union and the European Economic Area. It is inclusive of animal health professionals. It is a two-year training program consisting of two distinct pathways: field epidemiology (EPIET) and public health microbiology (EUPHEM). It was created in 1995 and is available to the whole European Union (EU) and European Economic Area (EEA) member states. Its main objective is to strengthen the European network of public health professionals through use of shared standards and methods, good practices, and common public health objectives [1].

[1] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). "European Programme for Intervention Epidemiology Training (EPIET) and the European Programme for Public Health Microbiology Training (EUPHEM)". [<https://www.tephinet.org/training-programs/european-programme-for-intervention-epidemiology-training-epiet-and-the-european>]. Accessed November 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

Is there public evidence that the country has at least 1 trained field epidemiologist per 200,000 people?

Yes = 1, No = 0

Current Year Score: 0

2020

Completed JEE assessments; Economist Impact analyst qualitative assessment based on official national sources, which vary by country

Category 3: Rapid response to and mitigation of the spread of an epidemic

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

Does the country have an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential?

Evidence that there is a plan in place, and the plan is publicly available = 2, Evidence that the plan is in place, but the plan is not publicly available OR, Disease-specific plans are in place, but there is no evidence of an overarching plan = 1, No evidence that such a plan or plans are in place = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The Or.Mo.Se Plan, implemented by the Monegasque emergency Unit, is in place to respond to all major crises, on both national and international levels, in the area of civil security or civil protection. The Monegasque Emergency Unit implements emergency

plans that are adapted to all kind of incidents. Nevertheless, among the publicly available emergency plans, none of them refer to multiple communicable diseases with pandemic potential or health related emergencies. The plans are related to crises such as air crashes; marine pollution; radioactive and toxic risks; shipwrecks and tunnel rescue plans.[1]. The Department of Health Affairs also helps with the development and implementation of these emergency plans and is responsible for managing health crises [2]. Nevertheless, neither the Or.Mo.Se Plan nor the document related to the management of health crises are publicly available. Therefore, the content and details of these plans could not be provided. No further evidence could be found via the Ministry of Health, the Public Health Institute, or the Fire and Emergency Services [3, 4, 5, 6]. No further evidence could be found in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco or on Monaco's website dedicated to the coronavirus disease. [7,8]

[1] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[2] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire").

[<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[5] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[6] World Health Organization (WHO). 'Monaco'. [<https://extranet.who.int/sph/country/312>]. Accessed November 2020.

[7] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

[8] Public service. "COVID-19". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

3.1.1b

If an overarching plan is in place, has it been updated in the last 3 years?

Yes = 1 , No /no plan in place= 0

Current Year Score: 0

There is no publicly available evidence that Monaco's overarching plan has been updated in the last three years. Indeed, neither the Or.Mo.Se Plan nor the document related to the management of health crises is publicly available. Therefore, the content, details, and year of publication of these plans could not be provided. Nevertheless, according to the Prince's government's official website, the OR.MO.SE. Plan is regularly updated to respond to major incidents . Nevertheless, among the publicly available emergency plans, none of them refer to multiple communicable diseases with pandemic potential or health related emergencies. [1]. No further evidence could be found in the Directorate of Health Action, the Ministry of Health, the Public Health Institute, or the Fire & Emergency Service [2, 3, 4, 5]. No further evidence could be found in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco or on Monaco's website dedicated to the coronavirus disease. [6,7]

- [1] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.
- [2] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire"). [<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.
- [3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.
- [4] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.
- [5] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.
- [6] Prince's Government. "Official Bulletin of the Principality". [[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.
- [7] Public service. "COVID-19". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

3.1.1c

If an overarching plan is in place, does it include considerations for pediatric and/or other vulnerable populations?

Yes = 1, No /no plan in place= 0

Current Year Score: 0

There is no publicly available evidence that the overarching plan includes considerations for paediatric and other vulnerable populations. The Or.Mo.Se Plan, implemented by the Monegasque emergency Unit, is in place to respond to all major crises, on both national and international levels, in the area of civil security or civil protection. Nevertheless, neither the Or.Mo.Se Plan nor the document related to the management of health crises are publicly available. Therefore, evidence could not be provided to confirm that the plan includes considerations for paediatric and other vulnerable populations [1]. Moreover, according to Monaco's National Hyogo Framework for Action Progress, "there are no socio-economic distinctions in disaster risk reduction" [2]. The Hyogo Framework for Action (HFA), is a document endorsed by the UN General Assembly that identifies, assesses, and monitors disaster risks reduction mechanisms within countries. No further evidence could be found via the Ministry of Health, the Fire & Emergency Service, or the Directorate of Health Action [3, 4, 5]. No further evidence could be found in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco or on Monaco's website dedicated to the coronavirus disease. [6,7]

- [1] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.
- [2] Hyogo Framework for Action. 2013. "Monaco". [https://www.preventionweb.net/files/31700_mco_NationalHFAProgress_2011-13.pdf]. Accessed November 2020.
- [3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.
- [4] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.
- [5] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine

n? 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire").

[<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

[6] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

[7] Public service. "COVID-19". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

3.1.1d

Does the country have a publicly available plan in place specifically for pandemic influenza preparedness that has been updated since 2009?

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

Does the country have a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has an established agreement for engaging with the private sector to assist with outbreak emergency preparedness and response. The Monegasque emergency Unit is in charge of the activation and implementation of special measures in case of major technological or natural disasters. In this sense, it implements public and private measures to be used in the case of a disaster [1]. This mechanism is regulated by Sovereign Ordinance No. 5.640 of 14 December 2015: "Establishing a Directorate of Health Action". In Chapter II: Requisition of Goods and Persons, Article 8 stipulates that in the event of implementation of the Ormore plan or of an emergency plan, the Minister of State may exceptionally require any person or any qualified representative of a legal person to perform all services or to carry out any necessary work, either personally, or with the help of his attendants or by means of his equipment and provide movable or immovable property available for essential needs" [2]. Nevertheless, there is no further evidence of specific mechanisms for engaging with the private sector to assist with outbreak emergency preparedness and response in the Ministry of Health, the Fire & Emergency Service, or in the Coordinated Emergency Intervention Department [1, 3, 4]. In the same way, in the midst of the coronavirus disease, there is evidence that to relieve pressure on Princess Grace Hospital, all PCR testing are sent from the hospital to the CSM, and other private laboratories. [5] However, no specific mechanism could be found in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco. [6]

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire").

[<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[5] Prince's Government. November 2020. "COVID-19: H.S.H. Prince Albert II unveils facilities that will increase the Principality's independent PCR testing capacity". [<https://en.gouv.mc/Portail-du-Gouvernement/A-la-Une-du-Portail/COVID-19-H.S.H.-Prince-Albert-II-unveils-facilities-that-will-increase-the-Principality-s-independent-PCR-testing-capacity>]. Accessed November 2020.

[6] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

Does the country have a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic?

Yes, a policy, plan and/or guidelines are in place for more than one disease = 2, Yes, but the policy, plan and/or guidelines exist only for one disease = 1, No = 0

Current Year Score: 1

There is publicly available evidence that the country has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs), but they only exist for one disease - COVID-19. Monaco has a website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. Most of them contain NPIs such as to limit the spread of the disease in such situations. These include policies such as social distancing, closing schools, recommending work from home, etc. However, they are specific to the COVID-19 crisis. [1] There is no evidence of an overall plan with NPIs for other types of epidemics in the Ministry of Health, the Fire & Emergency Service, the Coordinated Emergency Intervention Department or the Princess Grace Hospital. [2,3,4,5]

[1] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

- Is there evidence that the country has activated their national emergency response plan for an infectious disease outbreak in the past year?

- Is there evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year?

Needs to meet at least one of the criteria to be scored a 1 on this measure. , Yes for both = 1 , Yes for one = 1 , No for both = 0

Current Year Score: 0

There is no publicly available evidence that the country has activated its national emergency response plan for an infectious disease outbreak in the past year, as there is no national overall emergency response plan. Moreover, there is no evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year.

Monaco only published several ordinances to fight COVID-19, however, it can't be considered a national overall emergency response plan. [1] Further, the latest IHR exercise was conducted in Monaco in 2013 to comply with the IHR in the principality. The full-scale exercise was conducted on the sea wall of the Port of Monaco. The first phase took place on the Port Hercule sea wall, simulating the evacuation of a person infected with a highly contagious disease from a ship after the captain had sounded the alert. For the second phase, the teams then went to Fontvieille fire station, which served as a fictitious hospital, to treat and decontaminate the patient [2]. There is no additional evidence of an emergency response plan activation or bio-threat focused exercise on the WHO IHR portal, the WHO country factsheet, the Ministry of Health, the Coordinated Emergency Intervention Department or the WHO Simulation Exercises page [3, 4, 5,6,7].

[1] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

[2] Prince's Government. "The International Health Regulations". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system/The-International-Health-Regulations>]. Accessed November 2020.

[3] World Health Organization (WHO). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed November 2020.

[4] World Health Organization (WHO). "Monaco". [<http://www.who.int/countries/mco/en/>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[7] World Health Organization (WHO). "WHO Simulation Exercises". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed January 2021.

3.2.1b

Is there evidence that the country in the past year has identified a list of gaps and best practices in response (either through an infectious disease response or a biological-threat focused exercise) and developed a plan to improve response capabilities?

Yes, the country has developed and published a plan to improve response capacity = 2 , Yes, the country has developed a plan to improve response capacity, but has not published the plan = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has, in the past year, identified a list of gaps and best practices in response (either through an infectious disease response or a biological-threat focused exercise) and developed a plan to improve response capabilities. The latest IHR exercise was conducted in Monaco in 2013 to comply with the IHR in the principality. The full-scale exercise was conducted on the sea wall of the Port of Monaco. The first phase took place on the Port Hercule sea wall, simulating the evacuation of a person infected with a highly contagious disease from a ship after the captain had sounded the alert. For the second phase, the teams then went to Fontvieille fire station, which served as a fictitious hospital, to treat and decontaminate the patient [1]. There is no further evidence on the WHO IHR portal, the WHO country factsheet, the Ministry of Health, or the Coordinated Emergency Intervention Department [2, 3, 4, 5].

[1] Prince's Government. "The International Health Regulations". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system/The-International-Health-Regulations>]. Accessed November 2020.

[2] World Health Organization (WHO). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed November 2020.

[3] World Health Organization (WHO). "Monaco". [<http://www.who.int/countries/mco/en/>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

Is there evidence that the country in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has, in the past year, undergone a national-level biological threat-focused exercise that has included private sector representatives. The latest IHR exercise was conducted in Monaco in 2013 to comply with the IHR in the principality. There is no evidence of intervention from the private sector [1]. There is no further evidence on the WHO IHR portal, the WHO country factsheet, the Ministry of Health, the Coordinated Emergency Intervention Department or the WHO Simulation Exercises page [2, 3, 4, 5,6].

[1] Prince's Government. "The International Health Regulations". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system/The-International-Health-Regulations>]. Accessed November 2020.

[2] World Health Organization (WHO). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed

November 2020.

[3] World Health Organization (WHO). "Monaco". [<http://www.who.int/countries/mco/en/>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[6] World Health Organization (WHO). "WHO Simulation Exercises". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed January 2021.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

Does the country have in place an Emergency Operations Center (EOC)?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Monaco's Emergency Operations Center (EOC), the National Crisis Management Centre (CNGC), manages public health-related emergencies, including pandemics. The CNGC's is the physical place, used by the Monegasque Emergency Unit, the committee that takes decisions related to emergencies. The Monegasque Emergency Unit can use the CNGC's premises and means to implement the Or.Mo.Se plan. This plan aims to respond to major crises at the national and international levels and bring together all stakeholders, including decision-makers and offer a comprehensive and rapid response to any problem that arises. It also aims to provide information relevant to the population and/or the media and to respond 24/7 [1]. The emergency plans available deal with air crashes, threats posed by oil pollution at sea, radioactive, and toxic risks. However, there is no mention of any health-related emergency aside from a small paragraph details a "red plan" that can be "implemented in the case of a sudden incident that involves or may involve many victims" [1, 2].

[1] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[2] Hyogo Framework for Action. 2013. "Monaco".

[https://www.preventionweb.net/files/31700_mco_NationalHFAprogress_2011-13.pdf]. Accessed November 2020.

3.3.1b

Is the Emergency Operations Center (EOC) required to conduct a drill for a public health emergency scenario at least once per year or is there evidence that they conduct a drill at least once per year?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Emergency Operations Center (EOC) is required to conduct or that it conducts a drill at least once per year, as there is no evidence that the EOC deals with public health emergencies. Although emergency exercises were conducted within the last year, they are not related to a public health emergency but rather related to an explosion emergency scenario, a hostage-taking scenario, and an anti-pollution exercise caused by an accidental spill of hydraulic oil at sea [1, 2, 3]. The only emergency health scenario found was conducted in 2013. It was a biological threat-

focused International Health Regulations (IHR) exercise, simulating the evacuation of a person infected with a highly contagious disease from a ship [4]. No further evidence could be found on the websites of the Ministry of Health and the Fire & Emergency Service [5, 6].

[1] Prince's Government. 2017. 'Binational SNCF Exercise at Monaco Station'. [<https://en.gouv.mc/Policy-Practice/Security/News/Binational-SNCF-exercise-at-Monaco-station>]. Accessed November 2020.

[2] Prince's Government. 2017. 'Review of Security Exercise at Rainier III Auditorium'. [<https://en.gouv.mc/Policy-Practice/Security/News/Review-of-security-exercise-at-Rainier-III-Auditorium>]. Accessed November 2020.

[3] Prince's Government. 2018. 'Anti-Pollution Exercise in the Area of Construction Work for the Offshore Extension'. [<https://en.gouv.mc/Policy-Practice/The-Environment/Actualites/Anti-Pollution-Exercise-in-the-Area-of-Construction-Work-for-the-Offshore-Extension>]. Accessed November 2020.

[4] Prince's Government. "The International Health Regulations". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system/The-International-Health-Regulations>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

3.3.1c

Is there public evidence to show that the Emergency Operations Center (EOC) has conducted within the last year a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Emergency Operations Centre (EOC) can conduct, or has conducted within the last year, a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario, as there is no evidence that the EOC deals with public health emergencies. Although emergency exercises were conducted within the last year, they are not related to a public health emergency but rather to an explosion emergency scenario, a hostage-taking scenario, and an anti-pollution exercise caused by an accidental spill of hydraulic oil at sea [1, 2, 3]. The only emergency health scenario found was conducted in 2013. It was a biological threat-focused IHR exercise, simulating the evacuation of a person infected with a highly contagious disease from a ship [4]. No further evidence could be found on the websites of the Ministry of Health and in the Fire & Emergency Service [5, 6].

[1] Prince's Government. 2017. 'Binational SNCF Exercise at Monaco Station'. [<https://en.gouv.mc/Policy-Practice/Security/News/Binational-SNCF-exercise-at-Monaco-station>]. Accessed November 2020.

[2] Prince's Government. 2017. 'Review of Security Exercise at Rainier III Auditorium'. [<https://en.gouv.mc/Policy-Practice/Security/News/Review-of-security-exercise-at-Rainier-III-Auditorium>]. Accessed November 2020.

[3] Prince's Government. 2018. 'Anti-Pollution Exercise in the Area of Construction Work for the Offshore Extension'. [<https://en.gouv.mc/Policy-Practice/The-Environment/Actualites/Anti-Pollution-Exercise-in-the-Area-of-Construction-Work-for-the-Offshore-Extension>]. Accessed November 2020.

[4] Prince's Government. "The International Health Regulations". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/An-exemplary-Public-Health-system/The-International-Health-Regulations>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[7] World Health Organization (WHO). 'Monaco'. [<https://extranet.who.int/sph/country/312>]. Accessed November 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

3.4.1 Public health and security authorities are linked for rapid response during a biological event

3.4.1a

Does the country meet one of the following criteria?

- Is there public evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack)?

- Are there publicly available standard operating procedures, guidelines, memorandums of understanding (MOUs), or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e., bioterrorism attack)?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no publicly available evidence that public health and national security authorities have conducted an exercise to respond to a potential deliberate biological event or there standard operating procedures, guidelines, memorandums of understanding (MOUs), or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e., bioterrorism attack) are in place in Monaco.

The only exercise related to terrorism found is a hostage-taking scenario [1]. The Or.Mo.Se Plan is in place to respond to all major crises, at both national and international levels, in the area of civil security or civil protection. It specifies provisions in the event of a biosafety event but not for biosecurity. This plan also brings together all stakeholders, including decision-makers and offer a comprehensive and rapid response to any problem that arises. It also aims to provide information relevant to the population and/or the media and to respond 24/7 [2]. Monaco has conducted an emergency exercise with France but it does not involve any deliberate biological event. It was a binational exercise that involved an explosion that took place at the SNCF station in Monaco. For this exercise, on the Monegasque side, the Ministry of the Interior, the Fire and Emergency Service, the Palace Guards, the Police Department, the Monaco Red Cross, Princess Grace Hospital, and the Department of Health Affairs were participating. The French side was represented by the Prefecture of the Alpes-Maritimes region, the Joint Ministerial Office for Civil Defence and Protection, the Alpes-Maritimes Regional Fire and Emergency Service, the SNCF, and the National Gendarmerie [3].

Also, there is no publicly available evidence of standard operating procedures between the public health and security authorities to respond to a potential deliberate biological event. There is no further evidence of any agreements or SOPs for such an event on the Ministry of Health website. [4]

[1] Prince's Government. 2017. 'Review of Security Exercise at Rainier III Auditorium'. [<https://en.gouv.mc/Policy-Practice/Security/News/Review-of-security-exercise-at-Rainier-III-Auditorium>]. Accessed April 2021.

[2] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed April 2021.

[3] Prince's Government. 2017. 'Binational SNCF Exercise at Monaco Station'. [<https://en.gouv.mc/Policy-Practice/Security/News/Binational-SNCF-exercise-at-Monaco-station>]. Accessed April 2021.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed April 2021.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

Does the risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) outline how messages will reach populations and sectors with different communications needs (eg different languages, location within the country, media reach)?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has in place, either in the national public health emergency response plan or in other legislation, regulation or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency. Indeed, neither the Or.Mo.Se Plan (Monegasque Emergency Unit) nor the document related to the management of health crises are publicly available [1]. Nevertheless, according to Monaco's National Hyogo Framework for Action Progress, "risk communication systems and protocols are not in place" [2]. No further evidence could be found on the websites of the Ministry of Health, the Fire & Emergency Service, and the Directorate of Health Action [3, 4, 5].

[1] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[2] Hyogo Framework for Action. 2013. "Monaco". [https://www.preventionweb.net/files/31700_mco_NationalHFAProgress_2011-13.pdf]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[5] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire"). [<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020

3.5.1 Risk communication planning

3.5.1a

Does the country have in place, either in the national public health emergency response plan or in other legislation, regulation, or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the risk strategy outlines how messages will reach populations and sectors with different communications needs for public health emergencies. Indeed, details concerning the Or.Mo.Se Plan (Monegasque Emergency Unit) and the management of health crises are not publicly available. On the other hand, the Government Communication Department is responsible for developing and drafting messages, recommendations and proposed language and develop external partnerships in accordance with needs and strategies. Nevertheless, it is not explicitly used for public health emergencies [1]. No further evidence could be found on the websites of the Ministry of Health, the Fire & Emergency Service, or the Directorate of Health Action [2, 3, 4].

[1] Prince's Government. "Government Communication Department". [<https://en.gouv.mc/Government-Institutions/The-Government/The-Ministry-of-State/General-Secretariat-of-the-Government/Government-Communication-Department>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire"). [<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

3.5.1c

Does the risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency?

Yes = 1 , No = 0

Current Year Score: 1

Monaco does not have a risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) and as such, but there is publicly available evidence that it designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency, for covid-19. There is no such evidence in the Ministry of Health, the Fire & Emergency Service, and the Directorate of Health Action . [1,2,3] Monaco has a website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. They designate as the primary spokesperson the Director of Health Action and the Director of Public Security [4]

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[3] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire"). [<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020

[4] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

3.5.2 Public communication

3.5.2a

In the past year, is there evidence that the public health system has actively shared messages via online media platforms (e.g. social media, website) to inform the public about ongoing public health concerns and/or dispel rumors, misinformation or disinformation?

Public health system regularly shares information on health concerns = 2, Public health system shares information only during active emergencies, but does not regularly utilize online media platforms = 1, Public health system does not regularly utilize online media platforms, either during emergencies or otherwise = 0

Current Year Score: 1

In the past year, there is publicly available evidence that the public health system has actively shared messages via online media platforms (e.g. social media, website) to inform the public about ongoing public health concerns and/or dispel rumors, misinformation or disinformation. However, it seems that the public health system shares information only during active emergencies, but does not regularly utilize online media platforms. In the midst of the coronavirus crisis, the government has actively shared information through their social media pages (Twitter and Facebook). These channels are used to inform the public about location of cases, new measures being implemented, etc. [1,2] There is no further evidence in the Ministry of Health, in the Princess Grace Hospital Centre, the Fire & Emergency Service or the Ministry of Interior in charge of public security. [3,4,5,6]

[1] Twitter. "Monaco's government". [<https://twitter.com/GvtMonaco>]. Accessed November 2020.

[2] Facebook. "Monaco's government". [https://www.facebook.com/pg/GvtMonaco/about/?ref=page_internal]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[5] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[6] Ministry of Interior. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior>]. Accessed November 2020.

3.5.2b

Is there evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years?

No = 1, Yes = 0

Current Year Score: 1

There is no publicly available evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. There is no such evidence in the main news outlets of the country, on the website of the Ministry of Health or on the social media handles of the Head of State. [1,2,3,4]

[1] Monaco Hebdo. [<https://www.monacohebdo.mc/>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] Twitter. "Monaco's government". [<https://twitter.com/GvtMonaco>]. Accessed November 2020.

[4] Facebook. "Monaco's government". [https://www.facebook.com/pg/GvtMonaco/about/?ref=page_internal]. Accessed November 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 97.05

2019

International Telecommunication Union (ITU)

3.6.2 Mobile subscribers

3.6.2a

Mobile-cellular telephone subscriptions per 100 inhabitants

Input number

Current Year Score: 86.7

2019

International Telecommunication Union (ITU)

3.6.3 Female access to a mobile phone

3.6.3a

Percentage point gap between males and females whose home has access to a mobile phone

Input number

Current Year Score: 2.06

2018-2019

Gallup; Economist Impact calculation

3.6.4 Female access to the Internet

3.6.4a

Percentage point gap between males and females whose home has access to the Internet

Input number

Current Year Score: 3.96

2018-2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

In the past year, has the country issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak?

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available evidence that in the past year Monaco has issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak. No evidence could be found on the website of the World Health Organization (WHO), the WAHIS Interface, the Ministry of Health, the Ministry of Foreign Affairs and Cooperation or on any relevant media outlet [1, 2, 3,4].

[1] World Health Organization (WHO). "Emergencies Preparedness, Response". [<http://www.who.int/csr/don/en/>]. Accessed November 2020.

[2] WAHIS Interface. "Disease Information".

[https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/Immsummary]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Foreign Affairs and Cooperation". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Foreign-Affairs-and-Cooperation>]. Accessed November 2020.

3.7.1b

In the past year, has the country issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak?

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available evidence that in the past year, the country has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak. No evidence could be found on the website of the World Health Organization (WHO), the WAHIS Interface,

the Ministry of Health, the Ministry of Foreign Affairs and Cooperation or on any relevant media outlet [1, 2, 3,4].

[1] World Health Organization (WHO). "Emergencies Preparedness, Response". [<http://www.who.int/csr/don/en/>]. Accessed November 2020.

[2] WAHIS Interface. "Disease Information".

[https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/Immsummary]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Foreign Affairs and Cooperation". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Foreign-Affairs-and-Cooperation>]. Accessed November 2020.

3.7.2 Travel restrictions

3.7.2a

In the past year, has the country implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak?

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available evidence that in the past year Monaco has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. Monaco has a website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. Although there are some restrictions, within the country, on the movement of persons, there is no evidence of any ban to or from other countries. [1,2] Further evidence could not be found on the website of the World Health Organization (WHO), the WAHIS Interface, the Ministry of Health, the Ministry of Foreign Affairs and Cooperation, on the Public Service website where are published all the administrative measures taken concerning COVID-19 or on any relevant media outlet [3,4,5,6,1] . Monaco does not have a Ministry of Agriculture.

[1] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

[2] Monaco's Journal. March 2020. "Ministerial Decision of March 17, 2020 on the temporary regulation of travel to combat the spread of the COVID-19 virus, taken in application of article 65 of Sovereign Order No. 6.387 of May 9, 2017 relating to the implementation of the International Health Regulations (2005) in order to control the international spread of diseases". [<https://journaldemonaco.gouv.mc/en/Journaux/2020/Journal-8478/Decision-Ministerielle-du-17-mars-2020-portant-reglementation-temporaire-des-deplacements-en-vue-de-lutter-contre-la-propagation-du-virus-COVID-19-prise-en-application-de-l-article-65-de-l-Ordonnance-Souveraine-n-6.387-du-9-mai-2017-relative-a-la-mise-e>]. Accessed November 2020.

[3] World Health Organization (WHO). "Emergencies Preparedness, Response". [<http://www.who.int/csr/don/en/>]. Accessed November 2020.

[4] WAHIS Interface. "Disease Information".

[https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/Immsummary]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "Ministry of Foreign Affairs and Cooperation". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Foreign-Affairs-and-Cooperation>]. Accessed November 2020.

November 2020.

Category 4: Sufficient and robust health sector to treat the sick and protect health workers

4.1 HEALTH CAPACITY IN CLINICS, HOSPITALS, AND COMMUNITY CARE CENTERS

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 750.67

2014

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 2016.09

2014

WHO; national sources

4.1.1c

Does the country have a health workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The General Inspectorate of the Civil Service, which is in charge of monitoring and auditing the work of government departments and conducts studies and inspections to ameliorate the work of government departments, does not have such a public workforce strategy publicly available [1]. Further, there is no evidence of a workforce strategy in the 2015 and 2016 annual

reports of activities (the newest reports available) of the General Inspectorate of the Civil Service [2, 3,4]. Nevertheless, according to the Public Policy Barometer (2016), "In 2015, there were 32.8 health workers per 1,000 population. This figure is within the higher end of the standard range" [3]. There is no further evidence via the Ministry of Health [5]. Monaco does not have a Ministry of Labor or Education.

[1] The General Inspectorate of the Civil Service.2016.'Annual Report of Activities'.

[<https://en.gouv.mc/content/download/408264/4614414/file/IGA%20-%202016%20Rapport%20d'activit%C3%A9%20240517.pdf>]. Accessed November 2020.

[2] The General Inspectorate of the Civil Service.2015.'Annual Report of Activities'.

[<https://en.gouv.mc/content/download/293864/3340630/file/IGA-Rapport%20d'activit%C3%A9%202015.pdf>]. Accessed November 2020.

[3] Prince's Government. 2016. " Public Policy Barometer". [<https://documents.gouv.mc/www/iga/barometre/barometre-2016.html>]. Accessed November 2020.

[4] Prince's Government. "General Inspectorate of the Civil Service's Annual Reports". [<https://en.gouv.mc/Policy-Practice/A-Modern-State/Publications/General-Inspectorate-of-the-Civil-Service-s-Annual-Reports>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 1380

2012

WHO/World Bank; national sources

4.1.2b

Does the country have the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation room/unit located within the country?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located within the country. In 2011, Monaco signed and ratified the International Sanitary Regulation (2005) and in 2017, through Ordinance n. 6.387 of 09/05/2017, implemented a few measures. Section II deals with technical capacities at entry points, where, according to the article 26 "the person in charge of an entry point has identified: secure spaces that can be dedicated [...] to travellers that may pose a risk for public health" [1]. In the case of Monaco, the entry point cited in the ordinance is the Hercules Port, where no mention of a biocontainment unit or any other patient isolation units could be found [2]. Moreover, in the same ordinance, Chapter VI deals with Emergency Measures, with Article 69 stipulating that "in case of an emergency, each health facility must implement a white paper. The white paper defines in particular, cell crisis operation, a containment plan, etc.[1]. Nevertheless, in the Princess Grace Hospital Centre, the only public hospital in Monaco dealing with epidemic diseases, the

white paper is not publicly available. Moreover, no reference to a biocontainment unit or other patient isolation units could be found [3, 4]. In the midst of the coronavirus crisis, there is only evidence that Monaco has the capacity to isolate patients with COVID-19 in the Princess Grace Hospital Centre, however, there are no references to the future permanence of these facilities. [5] Also, during the Ebola epidemic outbreak in West Africa in 2014, the government announced that if a case of Ebola was detected in Monaco, the patient would be transferred to the Assistance Publique Hôpitaux de Marseille, the leading French health facility for the southern region (link no longer available online) [6]. There is no further evidence via the Ministry of Health or in the Princess Grace Hospital Centre, the only public hospital in Monaco dealing with epidemic diseases [7,8]

[1] Legimonaco, Monegasque Codes and Laws. 2017. Ordinance n. 6.387 of 09/05/2017. "Referring to the Implementation of the International Health Regulations (2005) to Fight the International Spread of Diseases" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 6.387 du 09/05/2017. "Relative à la mise en œuvre du règlement sanitaire international (2005) en vue de lutter contre la propagation internationale des maladies").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/C07CA3B7B281D153C12581390032B99A!OpenDocument>].

Accessed November 2020.

[2] Monaco Ports. 'Hercules Port'. [<https://www.ports-monaco.com/en/the-hercule-port.html>]. Accessed November 2020.

[3] Ministry of Health and Social Affairs. 'Health: A Priority for Monaco'. [<https://www.gouv.mc/Action-Gouvernementale/Le-Social-et-la-Sante/Publications/Sante-une-priorite-Monegasque>]. Accessed November 2020.

[4] High Health Authority. 2015. "Princess Grace Hospital Certification Report" - Haute Autorité de santé. "Rapport De Certification Centre Hospitalier Princesse Grace". [https://www.chpg.mc/wp-content/uploads/2016/12/30152_rac_vd.pdf]. Accessed November 2020.

[5] The Princess Grace Hospital Centre. November 2020. "The CHPG ready to face the increasng number of COVID-19 cases". [<https://www.chpg.mc/news-posts/le-chpg-en-ordre-de-marche-face-a-laugmentation-de-cas-de-covid-19/>]. Accessed November 2020.

[6] Prince's Government. 2014. "Ebola Viral Haemorrhagic Fever". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/Ebola-Viral-Haemorrhagic-Fever>]. Accessed November 2020.

[7] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[8] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

4.1.2c

Does the country meet one of the following criteria?

- Is there evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years?

- Is there evidence that the country has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years, no that the country has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. There is no such evidence in the ministerial orders issued during the COVID-19 epidemic or generally on the Ministry of Health, the Fire & Emergency Service, the Coordinated Emergency Intervention Department or the Princess Grace Hospital websites. [1, 2, 3, 4, 5]

- [1] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed April 2021.
- [2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed April 2021.
- [3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed April 2021.
- [4] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed April 2021.
- [5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed April 2021.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

Is there a national procurement protocol in place which can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE) for routine needs?

Yes for both laboratory and medical supply needs = 2, Yes, but only for one = 1, No = 0

Current Year Score: 2

There is publicly available evidence that Monaco has national procurement protocols in place which can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE) for routine needs. Indeed, the sovereign ordinance of April 4, 1995 regulates public procurement for public facilities. Although there is no specific mention of laboratory supplies (e.g. equipment, reagents and media) and medical supplies (e.g. equipment, PPE), the ordinance states that it concerns all public facilities [1]. Moreover, in the law of April 2017, which presents the framework for the homogenization of rules governing public procurement and concession contracts, Article 13 specifies that regulations apply for any directorate or Ministry requiring any service, device, or equipment [2]. There is no further evidence in the Ministry of Health. [3] Monaco does not have a Ministry of Agriculture.

[1] Monaco Journal. Sovereign Ordinance n°11.520 of 4/04/1995. "Regulating the Public Procurement for Public Facilities" (Journal de Monaco. Ordonnance souveraine n°11.519 of 4/04/1995 "Réglementant les marchés des établissements publics").

[<https://journaldemonaco.gouv.mc/var/jdm/storage/original/application/3b9fd8199bcf3bdebebf609dede93e8b.pdf>]. Accessed November 2020.

[2] National Council. April 2017. ("n°227-Law proposal concerning the unification of rules governing public procurement and concession contracts".-Conseil National. 'n°227-Proposition de loi relative à la passation des marchés publics et des concessions de service public'). [<https://www.conseil-national.mc/2017/06/26/227-proposition-de-loi-relative-a-la-passation-des-marches-publics-et-des-concessions-de-service-public/>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed April 2021.

4.2.2 Stockpiling for emergencies

4.2.2a

Does the country have a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency?

Yes = 2, Yes, but there is limited evidence about what the stockpile contains = 1, No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Monaco has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. The Hospital Pharmacy, inside the Princess Grace Hospital Centre, the public hospital of Monaco, is in charge of the preparation of medicines and medical equipment for emergency plans and events organized in the Principality. However, no evidence could be found of a stockpile of medical supplies (e.g. equipment, PPE) and medical countermeasures (MCM) (i.e. vaccines, therapeutics and diagnostics). [1] Further evidence of such a stockpile could not be found on the Ministry of Health, in the Princess Grace Hospital Centre, the Fire & Emergency Service or the Ministry of Interior in charge of public security websites [1, 2, 3, 4]. There is no further evidence on the Official Bulletin of the Principality website, where all the laws and ordinances for Monaco are published. [5] Monaco does not have a separate Ministry of Defence. Monaco has an active cooperation agreement with France since 1970. Although it does not specifically refer to medical equipment, it could potentially apply, since the document indicates that, in case of an emergency, France will assist Monaco in any necessary manner. [6]

[1] The Princess Grace Hospital Centre (CHPG). "Pharmacy". [<https://www.chpg.mc/portfolio/pharmacy/?lang=en>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] Ministry of Interior. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior>]. Accessed November 2020.

[5] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

[6] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque agreement Concerning Mutual Assistance Between Emergency Services and Civil Protection Services" (Légimonaco, Codes et Lois Monégasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monégasque sur l'assistance mutuelle entre les services de secours et de protection civile").

[<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed January 2020.

4.2.2b

Does the country have a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency?

Yes = 2, Yes, but there is limited evidence about what the stockpile contains = 1, No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Monaco has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. There is also no evidence of any shortage during the covid19 pandemic. There is no publicly available evidence that Monaco has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Such evidence could not be found in the Ministry of Health, in the Princess Grace Hospital Centre, the Fire & Emergency Service or the Ministry of Interior in charge of public security [1,2,3,4]. There is no further evidence in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco [5] Monaco does not have a separate Ministry of Defence. Monaco has an active cooperation agreement with France since 1970. Although it does not specifically refer to laboratory supplies, it could potentially apply, since the document indicates that, in case of an emergency, France will assist Monaco in any necessary manner. [6]

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] Ministry of Interior. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior>]. Accessed November 2020.

[5] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

[6] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque agreement Concerning Mutual Assistance Between Emergency Services and Civil Protection Services" (Légimonaco, Codes et Lois Monégasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monégasque sur l'assistance mutuelle entre les services de secours et de protection civile"). [<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed January 2020.

4.2.2c

Is there evidence that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. There is no evidence of such a review of stockpiles on the Ministry of Health, in the Princess Grace Hospital Centre, the Fire & Emergency Service or the Ministry of Interior in charge of public security websites [1, 2, 3, 4]. There is no further evidence in the Official Bulletin of the Principality, where all the laws and ordinances for Monaco are published. [5] Monaco does not have a separate Ministry of Defence.

[1] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>].

Accessed November 2020.

[3] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[4] Ministry of Interior. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior>]. Accessed November 2020.

[5] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency?

- Is there evidence of a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is insufficient evidence that Monaco has a plan or agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency nor of a mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

The PPE supply is addressed by the Internal Shop of the Fire and Emergency Unit for both routine national use and during a public health emergency. Nevertheless, there is no evidence that the unit has published a publicly available plan to produce medical supplies. The main priority of the Internal Shop of the Fire and Emergency Unit is to ensure the purchase, management, distribution, and control of PPE [1]. The 2017 activity report describes the activities conducted by the Fire & Emergency Service in 2017 and the statistics related to its activities. It only has a very brief section stating that the Internal Shop of the Fire and Emergency Unit ensures the management and upkeep of PPE against biological, chemical, and ionizing radiation hazards and that the material will be adapted to better respond to new threats [2].

Concerning MCMs, the Hospital Pharmacy, inside the Princess Grace Hospital Centre, the public hospital of Monaco, is in charge of the preparation of medicines and medical equipment for emergency plans and events organized in the Principality, however, there is no evidence of a plan to leverage domestic manufacturing capacity to produce medical countermeasures [3]. There is no further evidence via the Ministry of Health or the Princess Grace Hospital Centre [4,5].

On the other hand, Monaco has an active cooperation agreement with France since 1970. It is stated that, in case of an emergency, France will assist Monaco in any necessary manner. [6] This was confirmed in the midst of the COVID-19 crisis, when Monaco made requirements for the procurement of respirators and surgical masks from France. [7] Finally, Monaco has agreements with the European Commission since 2015 (with an update in 2020, due to the coronavirus pandemic) for the procurement of medical supplies (e.g. equipment, PPE) for national use during a public health emergency. [8]

- [1] Prince's Government. "The Fire & Emergency Service" (Gouvernement Princier. "Corps des sapeurs-pompiers de Monaco"). [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.
- [2] Prince's Government. "2017 Annual Activity Report". [<https://www.pompiers.gouv.mc/content/download/449625/5104151/file/Rapport%20d'activit%C3%A9s%202017.pdf>]. Accessed November 2020.
- [3] The Princess Grace Hospital Centre (CHPG). "Pharmacy". [<https://www.chpg.mc/portfolio/pharmacy/?lang=en>]. Accessed November 2020.
- [4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.
- [5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.
- [6] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque agreement Concerning Mutual Assistance Between Emergency Services and Civil Protection Services" (Légimonaco, Codes et Lois Monégasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monégasque sur l'assistance mutuelle entre les services de secours et de protection civile"). [<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed November 2020.
- [7] French Government. "Covid-19 / Measures implemented by European States (DUE zone)". [http://nouvelle-aquitaine.drdjcs.gouv.fr/sites/nouvelle-aquitaine.drdjcs.gouv.fr/IMG/pdf/0721tableau_recensement_mesures_due.pdf]. Accessed November 2020.
- [8] Official Journal of the European Union. April 2020. "Commission Implementing Regulation (EU) April 23, 2020 subjecting the export of certain products to the presentation of an export authorization". [<https://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:32020R0568&from=DE>]. Accessed November 2020.

4.2.3b

Does the country meet one of the following criteria?

- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency; nor is there evidence that Monaco has a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Monaco has an active cooperation agreement with France since 1970. Although laboratory supplies are not specifically mention it is stated that, in case of an emergency, France will assist Monaco in any necessary manner. [1] However, no further evidence could be found in the Ministry of Health, in the Princess Grace Hospital Centre, the Fire & Emergency Service or the Ministry of Interior in charge of public security [2,3,4,5]. There is no further evidence in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco [6]

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque agreement Concerning Mutual Assistance Between Emergency Services and Civil Protection Services" (Lègimonaco, Codes et Lois Monégasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exècutoire à Monaco l'accord

franco-monégasque sur l'assistance mutuelle entre les services de secours et de protection civile").

[https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs]. Accessed November 2020.

[3] The Princess Grace Hospital Centre (CHPG). "Health Networks". [https://www.chpg.mc/reseaux-de-sante/?lang=en]. Accessed November 2020.

[4] Prince's Government. "The Fire & Emergency Service". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service]. Accessed November 2020.

[5] Ministry of Interior. [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior]. Accessed November 2020.

[6] Prince's Government. "Official Bulletin of the Principality".

[https://journalde Monaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list]. Accessed November 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

4.3.1 System for dispensing medical countermeasures (MCM) during a public health emergency

4.3.1a

Does the country have a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics and diagnostics)?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics and diagnostics). However, pharmacists are legally obliged to procure medical countermeasures for national use during a public health emergency (i.e. vaccines, therapeutics, and diagnostics) through Ministerial Order n. 82-483 of 29/09/1982 establishing the Code of Pharmaceutical Ethics . Article 6 stipulates that pharmacists are required to collaborate in the work of public authorities for the protection and preservation of public health [1]. Moreover, the Hospital Pharmacy, inside the Princess Grace Hospital Centre, the public hospital of Monaco, is in charge of the preparation of medicines and medical equipment for emergency plans and events organized in the Principality [2]. In both cases, a public health emergency is not explicitly mentioned. Finally, Monaco has an active cooperation agreement with France since 1970. Although it does not specifically refer to medical countermeasures, it could apply, since the document indicates that, in case of an emergency, France will assist Monaco in any necessary manner [3]. However, no further evidence could be found in the Ministry of Health, in the Princess Grace Hospital Centre, the Fire & Emergency Service or the Ministry of Interior in charge of public security [4,5,6,7]. There is no further evidence in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco [8]

[1] Legimonaco, Monegasque Codes and Laws. Ministerial Order n. 82-483 of 29/09/1982. 'Establishing the Code of Pharmaceutical Ethics' (Lègimonaco, Codes et Lois Monégasques. Arrêté ministériel n. 82-483 du 29/09/1982 fixant le Code de déontologie pharmaceutique).

[https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/6F617E69EBF9C882C125773F003B0DEC!OpenDocument].

Accessed November 2020.

[2] The Princess Grace Hospital Centre (CHPG). "Pharmacy". [<https://www.chpg.mc/portfolio/pharmacy/?lang=en>]. Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque agreement Concerning Mutual Assistance Between Emergency Services and Civil Protection Services" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monègasque sur l'assistance mutuelle entre les services de secours et de protection civile"). [<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[6] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[7] Ministry of Interior. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior>]. Accessed November 2020.

[8] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

4.3.2 System for receiving foreign health personnel during a public health emergency

4.3.2a

Is there a public plan in place to receive health personnel from other countries to respond to a public health emergency?

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has a public plan in place to receive health personnel from other countries to respond to a public health emergency. France and Monaco have an "Agreement concerning mutual assistance between emergency services and civil protection services" signed and ratified in 1970 [1]. Nevertheless, this agreement does not have a plan to facilitate the arrival and movement of foreign personnel during an emergency, such as facilitating visas and travel, designating an agency responsible for coordinating their travel, etc. There is no further evidence via the Ministry of Health, in the Public Health Institute, in the Fire and Emergency Services or in the Ministry of Interior in charge of public security [2, 3, 4, 5]. Monaco does not have a Ministry of Defense.

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque Agreement Concerning Mutual Assistance between Emergency Services and Civil Protection Services" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monègasque sur l'assistance mutuelle entre les services de secours et de protection civile"). [<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed November 2020.

[2] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[3] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[4] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[5] Ministry of Interior. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior>]. Accessed November 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

Does the constitution explicitly guarantee citizens' right to medical care?

Guaranteed free = 4, Guaranteed right = 3, Aspirational or subject to progressive realization = 2, Guaranteed for some groups, not universally = 1, No specific provision = 0

Current Year Score: 0

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.15

1999-2018

WHO/World Bank/United Nations Children's Fund (UNICEF)

4.4.1c

Out-of-pocket health expenditures per capita, purchasing power parity (PPP; current international \$)

Input number

Current Year Score: 206.02

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

Paid sick leave = 2, Unpaid sick leave = 1, No sick leave = 0

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

Has the government issued legislation, a policy, or a public statement committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the government has issued a legislation, a policy, or a public statement committing to provide prioritized health care services to health care workers who become sick as a result of responding to a public health emergency. In Law. No. 444 of 16/05/1946, the compensation and insurance of work-related accidents are extended to occupational diseases, where some epidemic diseases, such as Ebola, are also included. This implies that if a person contracts Ebola while working, he will receive a monetary compensation [1]. Nevertheless, there is no commitment to provide prioritized health care. Further evidence could not be found in Ordinance No. 7.464 of 28/07/1982 concerning the status of the personnel of the Princess Grace Hospital Center [2]. Finally, further evidence could not be found in the State Medical Benefits Office, which deals with the management of benefits granted by the State relating to work-related accidents" and in the Office of Occupational Medicine, 'a dedicated advisory service for employers and employees in health, safety and hygiene matters. Its mission is to oversee the health of employees throughout their career in the Principality [3, 4]. There is no further evidence via the Ministry of Health, in the Fire & Emergency Service, in the Directorate of Health Action, or in the Coordinated emergency intervention department [5, 6, 7, 8].

[1] Legimonaco, Monegasque Codes and Laws. Law. 444 of 16/05/1946. 'Extending to Occupational Diseases the Legislation on Occupational Accidents' (Lègimonaco, Codes et Lois Monègasques. -Loi. n. 444 du 16/05/1946. "…tendant aux maladies professionnelles la législation sur les accidents du travail").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/7FD3CBD5A2B39A2DC125773F0037C6C1!OpenDocument>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Ordinance n. 7.464 of 28/07/1982. 'Concerning the Status of the Personnel of the Princess Grace Hospital Center' (Lègimonaco, Codes et Lois Monègasques. - Ordonnance n. 7.464 du 28/07/1982. "Portant statut du personnel de service du Centre hospitalier Princesse Grace").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/1D6D576BAD5E9738C125773F003B0B71!OpenDocument>]. Accessed November 2020.

[3] Prince's Government. 'State Medical Benefits Office'. [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/State-Medical-Benefits-Office>]. Accessed November 2020.

[4] The Office of Occupational Medicine of Monaco. [<http://www.omt.mc/en>]. Accessed November 2020.

[5] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[7] Journal of Monaco, Official Bulletin of the Principality. 2016. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine

n? 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire").

[<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

[8] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

Is there a system in place for public health officials and healthcare workers to communicate during a public health emergency?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that a system is in place for public health officials and health care workers to communicate during a public health emergency. When the 'Or.Mo.Se Plan' is activated by the Minister of State, the alert is then broadcasted by Civil Safety via a computerized system to mobilize staff [1]. Each person receives a document describing the command structure, mechanisms, and stages of the emergency. Nevertheless, this plan is not specific to health emergencies but is the general process to deal with any kind of emergency. Moreover, there are no further details on what are the emergency provisions in the Or.Mo.Se Plan that is activated. Indeed, neither the Or.Mo.Se Plan nor the document related to the management of health crises are publicly available and further details could not be provided [2]. There is no further evidence on how officials and workers communicate via the Ministry of Health, in the Fire & Emergency Service, in the Directorate of Health Action, or in the Coordinated Emergency Intervention Department [2, 3, 4]. This issue is not mentioned in the website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. [5]

[1] Monaco Hebdo. 2002. "A Law for Civil Safety" (Monaco Hebdo. "Une loi pour la sécurité civile").

[<http://monacohebdo.free.fr/lire.php?id=365>]. Accessed November 2020.

[2] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n? 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire").

[<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

[5] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

4.5.1b

Does the system for public health officials and healthcare workers to communicate during an emergency encompass healthcare workers in both the public and private sector?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that a system is in place for public health officials and health care workers to communicate during a public health emergency which encompasses healthcare workers in both the public and private sector. When the 'Or.Mo.Se Plan' is activated by the Minister of State, the alert is then broadcasted by Civil Safety via a computerized system to mobilize staff [1]. Each person receives a document describing the command structure, mechanisms, and stages of the emergency. Nevertheless, this plan is not specific to health emergencies but it is the general process to deal with any kind of emergency. Moreover, there are no further details on the emergency provisions in the Or.Mo.Se Plan that is activated. Indeed, neither the Or.Mo.Se Plan nor the document related to the management of health crises are publicly available, and further details could not be provided [2]. There is no further evidence on how officials and workers communicate via the Ministry of Health, in the Fire & Emergency Service, in the Directorate of Health Action, or in the Coordinated Emergency Intervention Department [2, 3, 4].

[1] Monaco Hebdo. 2002. "A Law for Civil Safety" (Monaco Hebdo. "Une loi pour la sécurité civile"). [<http://monacohebdo.free.fr/lire.php?id=365>]. Accessed November 2020.

[2] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020. Sovereign Ordinance No. 5.640 of 14 December 2015. 'Establishing a Directorate of Health Action' (Journal de Monaco, Bulletin officiel de la Principauté. Ordonnance Souveraine n° 5.640 du 14 décembre 2015. "Portant création d'une Direction de l'Action Sanitaire"). [<https://journaldemonaco.gouv.mc/Journaux/2016/Journal-8258/Ordonnance-Souveraine-n-5.640-du-14-decembre-2015-portant-creation-d-une-Direction-de-l-Action-Sanitaire>]. Accessed November 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

Is there evidence that the national public health system is monitoring for and tracking the number of healthcare associated infections (HCAI) that take place in healthcare facilities?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Monaco's national public health system monitors and tracks the number of health care associated infections that take place in health care facilities. Indeed, the epidemiology and hospital hygiene division of the Princess Grace Hospital Centre (CHPG) deals with prevention and eradication of nosocomial infections. Its main activities are the prevention of nosocomial infections thanks to the implementation of care protocols and maintenance of medical

systems; the assessment and audit of hospital practices; the epidemiological monitoring of nosocomial infections; combating the emergence and spread and multi-resistant bacteria strains; controlling bacteriological environmental, among other tasks [1].

[1] The Princess Grace Hospital Centre (CHPG). 'Epidemiology And Hospital Hygiene'.

[<https://www.chpg.mc/portfolio/epidemiology-and-hospital-hygiene/?lang=en>]. Accessed November 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

Is there a national requirement for ethical review (e.g., from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Monaco has a national requirement for ethical review before beginning a clinical trial. The Ethics Advisory Committee for Biomedical Research is the existing structure for review of health research proposals, according to Ministerial Order n. 2003-117 of 10/02/2003 on the functions of the Ethics Advisory Committee for Biomedical Research. Health research proposals include clinical trials [1]. Moreover, in Law. 1.265 of 23/12/2002, related to the protection of persons in biomedical research, Article 25 stipulates that before any health research proposal begins, the project must be submitted to the Ethics Advisory Committee for Biomedical Research [2].

[1] Legimonaco. Monegasque Codes and Laws. Ministerial Order n. 2003-117 of 10/02/2003. "On the Functions of the Ethics Advisory Committee for Biomedical Research" (Lègimonaco, Codes et Lois Monégasques. Arrêté ministériel n. 2003-117 du 10/02/2003. "Fixant la composition de fonctionnement du Comité consultatif d'éthique en matière de recherche biomédicale").

[<https://www.legimonaco.mc/305/legismclois.nsf/TNC/3BF872EF4280A7A2C125773F003CD63B!OpenDocument>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Law. 1.265 of 23/12/2002. "Relating to the Protection of Persons in Biomedical Research" (Lègimonaco, Codes et Lois Monégasques. Loi n. 1.265 du 23/12/2002. " Relative à la protection des personnes dans la recherche biomédicale").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/7AE9FDDA4F1818FDC125773F003CD156!OpenDocument>]. Accessed November 2020.

4.7.1b

Is there an expedited process for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. There was no mention of an expedited process in the Ministerial Order on the functions of the Ethics Advisory Committee for Biomedical Research [1] or in the Ministerial Order "Defining the conditions for the release of antibiotics for human use on the market" [2]. Nevertheless, there is no evidence of an expedited process. Further, Article 23 of the law protecting persons in biomedical research stipulates that: "Authorization or refusal of authorization shall be communicated within ninety days from the date of receipt of the application [3]. There is no reference to any expedited process. There is no further evidence via the Ministry of Health or in the Scientific Centre of Monaco or the website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. [4, 5,6].

[1] Legimonaco. Monegasque Codes and Laws. Ministerial Order n. 2003-117 of 10/02/2003. "On the Functions of the Ethics Advisory Committee for Biomedical Research" (Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2003-117 du 10/02/2003. "Fixant la composition de fonctionnement du Comité consultatif d'éthique en matière de recherche biomédicale").

[<https://www.legimonaco.mc/305/legismclois.nsf/TNC/3BF872EF4280A7A2C125773F003CD63B!OpenDocument>]. Accessed November 2020.

[2] Legimonaco. Monegasque Codes and Laws. Ministerial Order n. 2003-165 of 03/03/2003. 'Defining the Conditions for the Release of Antibiotics for Human Use on the Market' (Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2003-165 du 03/03/2003. "Fixant les conditions de mise sur le marché des médicaments à usage humain").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/C372D8C8B570BE23C125773F003CDBFB!OpenDocument>]. Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. Law. 1.265 of 23/12/2002. "Relating to the Protection of Persons in Biomedical Research" (Lègimonaco, Codes et Lois Monègasques. Loi n. 1.265 du 23/12/2002. "Relative à la protection des personnes dans la recherche biomédicale").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/7AE9FDDA4F1818FDC125773F003CD156!OpenDocument>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[6] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

Is there a government agency responsible for approving new medical countermeasures (MCM) for humans?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that there is a government agency responsible for approving new medical countermeasures for humans. Indeed, according to Ministerial Order No. 2003-165 of 03/03/2003, defining the conditions for the release of pharmaceutical products for human use in the market, the Department of Health Affairs, under the Ministry of Health and Social Affairs, is the entity responsible for approving new medical countermeasures for humans. "Any pharmaceutical speciality, any other industrially manufactured pharmaceutical product, as well as any generator, kit or precursor" must have been approved before its release in the market [1, 2].

[1] Legimonaco. Monegasque Codes and Laws. Ministerial Order n. 2003-165 of 03/03/2003. 'Defining the Conditions for the Release of Pharmaceutical Products for Human Use in the Market' (Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2003-165 du 03/03/2003. "Fixant les conditions de mise sur le marché des médicaments à usage humain"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/C372D8C8B570BE23C125773F003CDBFB!OpenDocument>]. Accessed November 2020.

[2] Prince's Government. "The Department of Health Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

4.7.2b

Is there an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there is an expedited process for approving medical countermeasures for human use during public health emergencies. No mention of an expedited process could be found in the Ministerial Order on the functions of the Ethics Advisory Committee for Biomedical Research [1] or in the Ministerial Order defining the conditions for the release of antibiotics for human use on the market [2]. There is no further evidence via the Ministry of Health or in the Scientific Centre of Monaco or the website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19. [3,4, 5].

[1] Legimonaco. Monegasque Codes and Laws. Ministerial Order n. 2003-117 of 10/02/2003. "On the Functions of the Ethics Advisory Committee for Biomedical Research" (Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2003-117 du 10/02/2003. "Fixant la composition de fonctionnement du Comité consultatif d'éthique en matière de recherche biomédicale").

[<https://www.legimonaco.mc/305/legismclois.nsf/TNC/3BF872EF4280A7A2C125773F003CD63B!OpenDocument>]. Accessed November 2020.

[2] Legimonaco. Monegasque Codes and Laws. Ministerial Order n. 2003-165 of 03/03/2003. 'Defining the Conditions for the Release of Antibiotics for Human Use on the Market' (Lègimonaco, Codes et Lois Monègasques. Arrêté ministériel n. 2003-165 du 03/03/2003. "Fixant les conditions de mise sur le marché des médicaments à usage humain").

[<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/C372D8C8B570BE23C125773F003CDBFB!OpenDocument>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[5] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

Category 5: Commitments to improving national capacity, financing plans to address gaps, and adhering to global norms

5.1 INTERNATIONAL HEALTH REGULATIONS (IHR) REPORTING COMPLIANCE AND DISASTER RISK REDUCTION

5.1.1 Official IHR reporting

5.1.1a

Has the country submitted IHR reports to the WHO for the previous calendar year?

Yes = 1 , No = 0

Current Year Score: 0

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

Are epidemics and pandemics integrated into the national risk reduction strategy or is there a standalone national disaster risk reduction strategy for epidemics and pandemics?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that epidemics and pandemics are integrated into the national risk reduction strategy or that there a standalone national disaster risk reduction strategy for epidemics and pandemics. Indeed, the Fire and Emergency Service performs civil security duties such as preparing National Security Plans and establishing permanent contact with international organizations regarding major natural and technological risks. On its website, there is no evidence of pandemics [1]. Moreover, the national emergency plans developed by the Monegasque Emergency Unit: the Or.Mo.Se Plan, the Red Plan, the bi-national Rainier III road tunnel plan, RAMOGEPOL plan do not make any reference to pandemics. There is no further evidence, since the document related to the management of health crises is not publicly available and the National Crisis Management Centre as well as the Monegasque Emergency Unit, do not have their own website [2]. According to the Hyogo Framework for Action, which is a document that identifies, assesses and monitors disaster risks reduction mechanisms within the countries, for Monaco, sectorial risk strategies are in place. Nevertheless, there is one strategy for pandemics but it is not publicly available. Finally, no relevant information could be found on the national platform developed to coordinate mechanisms between different partners for disaster reduction. This platform comprises members specialized in natural and technological risks [3]. There is no further evidence via the Ministry of Health or in the Directorate of Health Action [2, 4].

[1] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[2] Prince's Government."Coordinated Emergency Intervention". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy->

Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

[3] Hyogo Framework for Action. 2013. "Monaco".

[https://www.preventionweb.net/files/31700_mco_NationalHFAprogress_2011-13.pdf]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs]. Accessed November 2020.

5.2 CROSS-BORDER AGREEMENTS ON PUBLIC HEALTH AND ANIMAL HEALTH EMERGENCY RESPONSE

5.2.1 Cross-border agreements

5.2.1a

Does the country have cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to public health emergencies?

Yes = 2, Yes, but there is evidence of gaps in implementation = 1, No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Monaco has cross-border agreements, protocols, or memorandums of understanding (MOUs) with neighbouring countries, or as part of a regional group, with regard to public health emergencies.

Monaco has two bilateral treaties with France that can be used in case of an emergency one from 1970 and the other from 2006 that ensure mutual assistance in case of an emergency, although public health emergencies are not explicitly mentioned [1, 2]. Moreover, in 2018, Monaco signed a cooperation agreement specifically on health security with France, formalizing previous informal cooperation agreements that would enable Monaco "to be integrated as part of the PACA region's (Provence-Alpes-Côte d'Azur) mechanism for dealing with health crises, so that the Principality can fully engage within the context of the World Health Organisation's International Health Regulations [3]. There is evidence that Monaco and France have maintained durable and solid informal cooperation agreements on health security since in the midst of the COVID-19 crisis, Monaco made requirements for the procurement of respirators and surgical masks from France. [4] Also, during the Ebola crisis in 2014, informal cooperation agreements were in place between France and Monaco to support Monaco in case Ebola was detected within the territory. In this sense, the PACA agreement signed in 2018, is the first step to formalize previous informal cooperation strategies between the two countries. No further evidence could be found via the Ministry of Health, in the Public Health Institute, in the Fire and Emergency Services, or in the Coordinated Emergency Intervention Department [5, 6, 7,8].

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque Agreement Concerning Mutual Assistance between Emergency Services and Civil Protection Services" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monègasque sur l'assistance mutuelle entre les services de secours et de protection civile").

[https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Ordinance n. 407 of 15/02/2006. "Rendering Effective the Treaty Designed to Adapt and Confirm the Friendship and Cooperation Relation between the Principality of Monaco and the French Republic, Signed in Paris, October 24, 2002" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 407 du 15/02/2006. "Rendant exécutoire le Traité destiné à adapter et à confirmer les rapports d'amitié et de coopération entre la Principauté de Monaco et la République française, signé à Paris le 24 octobre 2002"). [https://journaldemonaco.gouv.mc/en/Journaux/2006/Journal-7745/Ordonnance-Souveraine-n-407-du-15-fevrier-2006-rendant-executoire-le-Traite-destine-a-adapter-et-a-confirmer-les-

rapports-d-amitie-et-de-cooperation-entre-la-Principaute-de-Monaco-et-la-Republique-francaise-signee-a-Paris-le-24-octobre-2002.]. Accessed November 2020.

[3] Prince's Government. July 2017. "France and Monaco Sign Agreements to Cooperate on Healthcare Safety and on Handling of Blood Products". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/France-and-Monaco-sign-agreements-to-cooperate-on-healthcare-safety-and-on-handling-of-blood-products>]. Accessed November 2020.

[4] French Government. "Covid-19 / Measures implemented by European States (DUE zone)". [http://nouvelle-aquitaine.drjcs.gouv.fr/sites/nouvelle-aquitaine.drjcs.gouv.fr/IMG/pdf/0721tableau_recensement_mesures_due.pdf]. Accessed November 2020.

[5] Prince's Government. "'Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[6] The Princess Grace Hospital Centre. [<https://www.chpg.mc/?lang=en>]. Accessed November 2020.

[7] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[8] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

5.2.1b

Does the country have cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to animal health emergencies?

Yes = 2, Yes, but there is evidence of gaps in implementation = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has cross-border agreements, protocols, or memorandums of understanding (MOUs) with neighbouring countries or as part of a regional group, specifically related to animal health emergencies. Although Monaco has two bilateral treaties with France that can be used in case of an emergency, one from 1970 and the other from 2006, that ensure mutual assistance in case of an emergency, animal health emergencies are not explicitly mentioned [1, 2]. In 2018, Monaco signed a cooperation agreement specifically on health security with France, formalizing previous cooperation agreements on health surveillance, emergency intervention, and support. However, there is no evidence that it also deals with animal health emergencies [3]. There is evidence that Monaco and France have maintained durable and solid informal cooperation agreements on health security. In this sense, the agreement signed in 2018 is the first step to formalize previous informal cooperation strategies between the two countries, however, there is no evidence that animal health emergencies will be taken into account in a later stage. There is no further evidence via the Ministry of Health or in the Fire and Emergency Service [4, 5]. No further information could be found in the National Crisis Management Centre and the Monegasque Emergency Unit neither has their own website but a description page within the Prince's government website [6].

[1] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque Agreement Concerning Mutual Assistance between Emergency Services and Civil Protection Services" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monègasque sur l'assistance mutuelle entre les services de secours et de protection civile"). [<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Ordinance n. 407 of 15/02/2006. "Rendering Effective the Treaty Designed to Adapt and Confirm the Friendship and Cooperation Relation between the Principality of Monaco and the French Republic, Signed in Paris, October 24, 2002" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 407 du 15/02/2006. "Rendant

exécutoire le Traité destiné à adapter et à confirmer les rapports d'amitié et de coopération entre la Principauté de Monaco et la République française, signé à Paris le 24 octobre 2002"). [<https://journaldemonaco.gouv.mc/en/Journaux/2006/Journal-7745/Ordonnance-Souveraine-n-407-du-15-fevrier-2006-rendant-executoire-le-Traite-destine-a-adapter-et-a-confirmer-les-rapports-d-amitie-et-de-cooperation-entre-la-Principaute-de-Monaco-et-la-Republique-francaise-signe-a-Paris-le-24-octobre-2002>]. Accessed November 2020.

[3] Prince's Government. July 2017. "France and Monaco Sign Areements to Cooperate on Healthcare Safety and on Handling of Blood Products". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/France-and-Monaco-sign-agreements-to-cooperate-on-healthcare-safety-and-on-handling-of-blood-products>]. Accessed November 2020.

[4] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[5] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

[6] Prince's Government. "Coordinated Emergency Intervention". [https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Security/Coordinated-emergency-intervention#eztoc2101167_1]. Accessed November 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

Does the county have signatory and ratification (or same legal effect) status to the Biological Weapons Convention?

Signed and ratified (or action having the same legal effect) = 2, Signed = 1, Non-compliant or not a member = 0

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

Has the country submitted confidence building measures for the Biological Weapons Convention in the past three years?

Yes = 1, No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

Has the state provided the required United Nations Security Council Resolution (UNSCR) 1540 report to the Security Council Committee established pursuant to resolution 1540 (1540 Committee)?

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

Extent of United Nations Security Council Resolution (UNSCR) 1540 implementation related to legal frameworks and enforcement for countering biological weapons:

Very good (60+ points) = 4, Good (45–59 points) = 3, Moderate (30–44 points) = 2, Weak (15–29 points) = 1, Very weak (0–14 points) or no matrix exists/country is not party to the BWC = 0

Current Year Score: 2

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

Does the country meet at least 2 of the following criteria?

- Membership in Global Health Security Agenda (GHSA)
- Membership in the Alliance for Country Assessments for Global Health Security and IHR Implementation (JEE Alliance)
- Membership in the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP)
- Membership in the Australia Group (AG)
- Membership in the Proliferation Security Initiative (PSI)

Needs to meet at least two of the criteria to be scored a 1 on this measure. , Yes for five = 1 , Yes for four = 1 , Yes for three = 1 , Yes for two = 1 , Yes for one = 0 , No for all = 0

Current Year Score: 0

2021

Global Health Security Agenda; JE Alliance; Global Partnership; Australia Group; PSI

5.4 JOINT EXTERNAL EVALUATION (JEE) AND PERFORMANCE OF VETERINARY SERVICES PATHWAY (PVS)

5.4.1 Completion and publication of a Joint External Evaluation (JEE) assessment and gap analysis

5.4.1a

Has the country completed a Joint External Evaluation (JEE) or precursor external evaluation (e.g., GHSA pilot external assessment) and published a full public report in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

5.4.1b

Has the country completed and published, within the last five years, either a National Action Plan for Health Security (NAPHS) to address gaps identified through the Joint External Evaluation (JEE) assessment or a national GHSA roadmap that sets milestones for achieving each of the GHSA targets?

Yes = 1 , No = 0

Current Year Score: 0

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

5.4.2 Completion and publication of a Performance of Veterinary Services (PVS) assessment and gap analysis

5.4.2a

Has the country completed and published a Performance of Veterinary Services (PVS) assessment in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

Has the country completed and published a Performance of Veterinary Services (PVS) gap analysis in the last five years?

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

Is there evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years. In the midst of the coronavirus crisis, in the 2020 Budget, more funds (+693 K €) were allocated to health facilities. However, it is not specified that this will help to improve capacity to address epidemic threats. There is also evidence that within this budget, "Covid measures" with a designed budget were implemented. However, this budget is not intended to address future epidemic threats but rather provide funds for credits to buy health devices such as personal protective equipment (PPE). [1] There is no further evidence in the 2019 Preliminary Budget. [2] Further evidence could not be found in the Ministry of Health. [3] Monaco does not have a Ministry of Agriculture.

However, there is evidence that in November 2020, a new secure laboratory known as laboratory P3 was inaugurated at the Monaco Scientific Centre (CSM). This laboratory, which was acquired to help tackle the health crisis caused by COVID-19, by increasing the pace of PCR testing will also be use to combat other potential health threats. [4]

[1] National Council. April 2020. "Report on bill 1013 fixing the budget for the 2020 financial year- amendment". [https://www.conseil-national.mc/wp-content/uploads/2020/07/PL1013_Rapport.pdf]. Accessed January 2021.

[2] Prince's Government. "2019 Preliminary Budget".

[<https://www.gouv.mc/content/download/456424/5204267/file/BP%202019%20Pr%C3%A9sentation%20%20Presse%20%20octobre%202018.pdf>]. Accessed November 2020.

[3] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[4] Prince's Government. November 2020. "COVID-19: H.S.H. Prince Albert II unveils facilities that will increase the Principality's independent PCR testing capacity". [<https://en.gouv.mc/Portail-du-Gouvernement/A-la-Une-du-Portail/COVID-19-H.S.H.-Prince-Albert-II-unveils-facilities-that-will-increase-the-Principality-s-independent-PCR-testing-capacity>]. Accessed in November 2020.

5.5.2 Financing under Joint External Evaluation (JEE) and Performance of Veterinary Services (PVS) reports and gap analyses

5.5.2a

Does the Joint External Evaluation (JEE) report, National Action Plan for Health Security (NAPHS), and/or national GHSA roadmap allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1 , No/country has not conducted a JEE = 0

Current Year Score: 0

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

5.5.2b

Does the Performance of Veterinary Services (PVS) gap analysis and/or PVS assessment allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1 , No/country has not conducted a PVS = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

Is there a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency (such as through a dedicated national reserve fund, an established agreement with the World Bank pandemic financing facility/other multilateral emergency funding mechanism, or other pathway identified through a public health or state of emergency act)?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Monaco has publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency. Monaco is not an eligible country to receive IDA resources and, therefore, cannot receive Pandemic Emergency Financing Facility (PEF). [1, 2]. Moreover, it is not eligible to receive any funds from international sources in the face of a public health emergency [3, 4]. At the national level, although, Monaco has a Constitutional Reserve Fund that is set up to support the government if the economy contracts, but it does not have a mandate to provide funding during a health emergency [3]. Also in the midst of the coronavirus crisis, an Emergency response fund was established, however, it aims to support economic activities. [5] Moreover, according to the Hyogo Framework for Action (HFA), which is a document that identifies, assesses, and monitors disaster risks reduction mechanisms within countries, "in Monaco, no financial provisions exist to deal with major disasters and Monaco does not have a National Disaster Fund" [4]. Finally, there is no evidence of a special emergency fund in the 2019 and 2020 Preliminary Budget [6,7]. No further evidence could be found via the Ministry of Health or in the Fire & Emergency Service [8,9].

[1] IDA. "Borrowing Countries". [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed in November 2020.

[2] Pandemic Emergency Financing Facility (PEF). December 2017. "Operational Brief for Eligible Countries". [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed in November 2020.

[3] Bill and Melinda Gates Foundation. "Emergency Response". [<https://www.gatesfoundation.org/What-We-Do/Global-Development/Emergency-Response>]. Accessed in November 2020.

[4] United Nations Foundation. "Funding for Global Health Emergencies is an Encouraging Step and More Will be Needed". [<https://unfoundation.org/blog/post/funding-global-health-emergencies-encouraging-step-will-needed/>]. Accessed in November 2020.

[3] Legimonaco. Monegasque Codes and Laws. Ordinance n. 3.981 of 29/02/1968. "Regarding the Constitutional Reserve Fund" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 3.981 du 29/02/1968. "Concernant le fonds de rèserve constitutionnel"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC/5237A3635EE34788C125773F00387046!OpenDocument>]. Accessed November 2020.

[4] Hyogo Framework for Action. 2013. "Monaco".

[https://www.preventionweb.net/files/31700_mco_NationalHFAprogress_2011-13.pdf]. Accessed November 2020.

[5] Monaco Tribune. March 2020. "Covid-19: National Councilors ask the Prince's Government for exceptional measures".

[<https://www.monaco-tribune.com/2020/03/coronavirus-les-conseillers-nationaux-demandent-au-gouvernement-principier-des-mesures-exceptionnelles/>]. Accessed January 2021.

[6] Prince's Government. "2019 Preliminary Budget".

[<https://www.gouv.mc/content/download/456424/5204267/file/BP%202019%20Pr%C3%A9sentation%20%20Presse%2023%20octobre%202018.pdf>]. Accessed November 2020.

[7] National Council. April 2020. "Report on bill 1013 fixing the budget for the 2020 financial year- amendment".

[https://www.conseil-national.mc/wp-content/uploads/2020/07/PL1013_Rapport.pdf]. Accessed January 2021.

[8] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[9] Prince's Government. "The Fire & Emergency Service". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Interior/The-Fire-Emergency-Service>]. Accessed November 2020.

5.5.4 Accountability for commitments made at the international stage for addressing epidemic threats

5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:

- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no publicly available evidence that senior leaders have made a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years or to improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. Monaco has an entire department dedicated to international cooperation, with some programs that specifically address epidemic threats [1]. The Prince's Government's Public Aid for Development, announced the support to more than 130 projects every year in 11 partner countries, primarily least developed countries [2]. The main epidemic threats addressed through these projects are malaria and HIV/AIDS [3]. One of the funded projects is the inter-country West African laboratory network, RESAOLAB (West African Network of Biological Analysis Laboratories), launched with the support of the Mérieux Foundation. The aim of this project is to reduce the impact of infectious diseases on vulnerable populations in seven member countries by improving health infrastructures and developing a system of high-quality medical biology laboratories [4]. From 2018 to 2020, the Monegasque Cooperation for development will support this project in Niger with EUR 403,356 (\$US 462,655) [5]. However, there is no evidence of a senior leader making such a commitment. No evidence could be found on the website of the World Health Organization (WHO), the UN, the Ministry of Health, the Ministry of Foreign Affairs and Cooperation or on any relevant media outlet [6,7,8,9].

[1] Monagesque Cooperation for development. "Emergency Aid". [<https://cooperation-monaco.gouv.mc/en/Emergency-Aid>]. Accessed November 2020.

[2] Monagesque Cooperation for development. "About". [<https://cooperation-monaco.gouv.mc/en/About>]. Accessed November 2020.

[3] Monagesque Cooperation for development. "Projects of the Monagesque Cooperation for development". [<https://cooperation-monaco.gouv.mc/Projets/Les-projets-de-la-Cooperation-monegasque>]. Accessed November 2020.

[4] Prince's Government. 2018. "Continuation of the Partnership between the Prince's Government and the Mérieux

Foundation in West Africa". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Monaco-Worldwide/Public-Aid-for-Development-and-International-Cooperation/News/Continuation-of-the-Partnership-between-the-Prince-s-Government-and-the-Merieux-Foundation-in-West-Africa>]. Accessed November 2020.

[5] Monegasque Cooperation for development. 'MERIEUX FOUNDATION' Continuation of the West Africa Laboratory Project (RESAOLAB Niger)". [<https://cooperation-monaco.gouv.mc/en/Projects/Monaco-s-Official-Development-Assistance-projects/West-Africa-and-the-Sahel/Niger/FONDATION-MERIEUX-Poursuite-du-projet-Reseau-d-Afrique-de-l-Ouest-des-Laboratoires-RESAOLAB-Niger>]. Accessed November 2020.

[6] World Health Organization (WHO). "Emergencies Preparedness, Response". [<http://www.who.int/csr/don/en/>]. Accessed November 2020.

[7] United Nations. "Meetings Coverage and Press Releases". [<https://www.un.org/press/en>]. Accessed November 2020.

[8] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[9] Prince's Government. "Ministry of Foreign Affairs and Cooperation". [<https://en.gouv.mc/Portail-du-Gouvernement/Government-Institutions/The-Government/Ministry-of-Foreign-Affairs-and-Cooperation>]. Accessed November 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 1

There is publicly available evidence that Monaco has invested finances (from donors or national budget) to support other countries to improve capacity to address epidemic threats in the past three years. However, there is no evidence that Monaco has requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats. Monaco has been supporting the RESAOLAB project since 2014. The RESAOLAB project is an inter-country West African laboratory network that aims to reduce the impact of infectious diseases on vulnerable populations. Therefore, in RESAOLAB documents, the Monegasque Cooperation for development is mentioned as a funding partner for the phase II of the project (2013-2017), which raised a total of EUR 8 million (\$US 9 million) (counting all funding partners). The amount disbursed by Monaco was not made public [1]. Moreover, there is evidence that from 2018 to 2020, the Monegasque Cooperation for development has disbursed EUR 2.5 million for pandemic and neglected disease control projects [2]. The Global Health Security Funding Tracker does not mention any funding by Monaco past 2016 or any funding received by the country in the past three years. [3, 4]

[1] RESAOLAB. "West African Network of Biomedical Analysis Laboratories". 2015. [<http://www.labbook.net/IMG/pdf/resaolab-brochure-2015.pdf>]. Accessed November 2020.

[2] The Monegasque Cooperation for development. "2018-2020 assessment of the Monegasque Cooperation". [<https://cooperation-monaco.gouv.mc/en/Publications/Direction-de-la-Cooperation-Internationale-Programmes-2018-2020>]. Accessed November 2020.

[3] Global Health Security Tracking. "Funder profile: Monaco". [<https://tracking.ghscosting.org/details/1001/funder>]. Accessed May 21, 2021.

[4] Global Health Security Tracking. "Recipient profile: Monaco". [<https://tracking.ghscosting.org/details/1001/recipient>]. Accessed May 21, 2021.

5.5.4c

Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years?

Yes = 1 , No = 0

Current Year Score: 1

2021

Economist Impact analyst qualitative assessment based on official national sources, which vary by country

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

5.6.1 Commitment to sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) in both emergency and nonemergency research

5.6.1a

Is there a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza. Monaco participates in the HIV/AIDS surveillance in Europe, jointly coordinated by the European Centre for Disease Prevention and Control (ECDC) and the WHO Regional Office for Europe. Through this network, Monaco shares epidemiological and case-based AIDS data [1]. Moreover, Monaco has two agreements with France, one from 1970 and the other from 2006, that ensure mutual assistance and cooperation in case of an emergency [2, 3]. Although there is evidence that Monaco has shared these data with France in the past, sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens are not explicitly mentioned in any plan. Indeed, the Medical Biology Laboratory of Monaco conducts some tests with its laboratory partner, Laboratoire CERBA, located in Paris, France [4]. In case of an epidemic disease outbreak in Monaco, the health authorities have to inform the Cire Sud (Paca-Corse), which is the French inter-regional cell for epidemiology surveillance for the Provence-Alpes-Côte d'Azur (PACA) region [5]. Finally, in 2018, Monaco signed a cooperation agreement specifically on health security with France, formalizing previous cooperation agreements on health surveillance, emergency intervention, and support. This cooperation agreement 'will also enable Monaco to be integrated as part of the PACA region's mechanism for dealing with health crises, so that the principality can fully engage within the context of the World Health Organisation's (WHO) International Health Regulations' [6]. Nevertheless, there is no evidence that this agreement has already been enforced, since it does not appear in the Legimonaco Codes and Laws and is not mentioned as a bilateral treaty with France [7, 8]. Finally, there is evidence that Monaco shares genetic data through networks such as Interpol, Europol and Francopol, but for matters dealing with international organized crime [9].

[1] European Centre for Disease Prevention and Control. 'HIV/AIDS Surveillance in Europe'.

[<https://ecdc.europa.eu/en/about-us/partnerships-and-networks/disease-and-laboratory-networks/european-network->

hivaid-1]. Accessed November 2020.

[2] Legimonaco, Monegasque Codes and Laws. Ordinance n. 4.465 of 29/05/1970. "Rendering Effective in Monaco the Franco-Monegasque agreement Concerning Mutual Assistance Between Emergency Services and Civil Protection Services" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 4.465 du 29/05/1970. "Rendant exécutoire à Monaco l'accord franco-monègasque sur l'assistance mutuelle entre les services de secours et de protection civile").

[<https://www.legimonaco.mc/305/legismclois.nsf/db3b0488a44ebcf9c12574c7002a8e84/430c12db5571f1d8c1257c5a002f4965!OpenDocument&Highlight=0,4.465>]. Accessed November 2020.

[3] Legimonaco, Monegasque Codes and Laws. Ordinance n. 407 of 15/02/2006. "Rendering Effective the Treaty designed to Adapt and Confirm the Friendship and Cooperation Relation between the Principality of Monaco and the French Republic, Signed in Paris, October 24, 2002" (Lègimonaco, Codes et Lois Monègasques. Ordonnance n. 407 du 15/02/2006. "Rendant exécutoire le Traité destiné à adapter et à confirmer les rapports d'amitié et de coopération entre la Principauté de Monaco et la République française, signé à Paris le 24 octobre 2002"). [<https://journaldemonaco.gouv.mc/en/Journaux/2006/Journal-7745/Ordonnance-Souveraine-n-407-du-15-fevrier-2006-rendant-executoire-le-Traite-destine-a-adapter-et-a-confirmer-les-rapports-d-amitie-et-de-cooperation-entre-la-Principaute-de-Monaco-et-la-Republique-francaise-signee-a-Paris-le-24-octobre-2002>]. Accessed November 2020.

[4] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[5] French Institute for Public Health Surveillance. 2008. 'Investigation of an Epidemic Outbreak of Measles in the Provence-Alpes-Côte d'Azur region and in the Principality of Monaco".

[http://www.cpias.fr/nosobase/recommandations/invs/2009_rougeole_paca.pdf]. Accessed November 2020.

[6] Prince's Government. July 2017. "France and Monaco Sign Agreements to Cooperate on Health care Safety and on Handling of Blood Products". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Social-Affairs-and-Health/News/France-and-Monaco-sign-agreements-to-cooperate-on-healthcare-safety-and-on-handling-of-blood-products>]. Accessed November 2020.

[7] Legimonaco, Monegasque Codes and Laws. "Laws" (Lègimonaco, Codes et Lois Monègasques. "Lois"). [<https://www.legimonaco.mc/305/legismclois.nsf/ViewTNC!OpenView&Start=1&Count=30&RestrictToCategory=Loi>]. Accessed November 2020.

[8] Prince's Government. "Bilateral Treaties with France". [<https://en.gouv.mc/Portail-du-Gouvernement/Policy-Practice/Monaco-Worldwide/Agreements-and-Treaties/Treaties-and-bilateral-agreements/Themes/Bilateral-treaties-with-France>]. Accessed November 2020.

[9] Prince's Government. "International Collaboration". [<https://en.gouv.mc/Policy-Practice/Security/International-collaboration>]. Accessed November 2020.

5.6.1b

Is there public evidence that the country has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years?

Yes = 0, No = 1

Current Year Score: 1

There is no publicly available evidence that Monaco has not shared influenza samples in accordance with the PIP framework in the past two years. Evidence could not be found in the World Health Organization (WHO) and top international and local media outlets [1].

[1] World Health Organization (WHO). Collaborating Centre for Reference and Research on Influenza. "Submitting Samples to the WHO Collaborating Centre". [<http://www.influenzacentre.org/>]. Accessed November 2020.

5.6.1c

Is there public evidence that the country has not shared pandemic pathogen samples during an outbreak in the past two years?

Yes = 0, No = 1

Current Year Score: 1

There is no publicly available evidence that Monaco has not shared pandemic pathogen samples during an outbreak in the past two years. Evidence could not be found in the World Health Organization (WHO) and top international and local media outlets [1]. There is no mention that Monaco has not shared COVID-19 samples in the website dedicated to the coronavirus disease, where several ordinances have been issued to fight COVID-19; in the Official Bulletin of the Principality, where are published all the laws and ordinances for Monaco ; in the Scientific Centre of Monaco; in the Princess Grace Hospital Center or in the Ministry of Health and Social Affairs. [2,3,4,5,6] No further evidence could be found on the website of the World Health Organization (WHO) and the UN, and in international and local newspapers. [7,8,9,10]

[1] World Health Organization (WHO). "Monaco". [<http://www.who.int/countries/mco/en/>]. Accessed November 2020.

[2] Public service. "Ministerial Decisions". [https://service-public-entreprises.gouv.mc/Covid-19/Informations-pratiques-Covid-19/Informations-generales/Decisions-Ministerielles#eztoc5454138_10]. Accessed November 2020.

[3] Prince's Government. "Official Bulletin of the Principality".

[[https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets\[attr_category_s:Cat%C3%A9gories\]=Lois&activeFacets\[article_jdm/category:Cat%C3%A9gories\]=Lois&filter\[\]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list](https://journaldemonaco.gouv.mc/content/search?SearchText=&activeFacets[attr_category_s:Cat%C3%A9gories]=Lois&activeFacets[article_jdm/category:Cat%C3%A9gories]=Lois&filter[]=attr_category_s:%22Lois%22&sort=published_desc&page_limit=15&display=list)]. Accessed November 2020.

[4] The Scientific Centre of Monaco (CSM). [<https://www.centrescientifique.mc/en>]. Accessed November 2020.

[5] The Princess Grace Hospital Centre (CHPG). "Health Networks". [<https://www.chpg.mc/reseaux-de-sante/?lang=en>]. Accessed November 2020.

[6] Prince's Government. "Ministry of Health and Social Affairs". [<https://en.gouv.mc/Government-Institutions/The-Government/Ministry-of-Health-and-Social-Affairs/The-Department-of-Health-Affairs>]. Accessed November 2020.

[7] [World Health Organization (WHO). "Emergencies Preparedness, Response". [<http://www.who.int/csr/don/en/>]. Accessed November 2020.

[8] United Nations. "Meetings Coverage and Press Releases". [<https://www.un.org/press/en>]. Accessed November 2020.

[9] Le Monde. [https://www.lemonde.fr/?_ga=2.121272768.915189399.1610579240-1624714314.1598966489&_gac=1.222180970.1610579240.Cj0KCQIA0fr_BRDaARIsAABw4EvhsdlUFXRcr48gVEK_3ltvWurpaZ2nCzX4rDQMlvSt4SSOnPO-Gq0aAggbEALw_wcB]. Accessed November 2020.

[10] Monaco Hebdo. [<https://www.monacohebdo.mc/>]. Accessed November 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.1b

Quality of bureaucracy (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.1c

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.1d

Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.1e

Country score on Corruption Perception Index (0-100, where 100=best)

Input number

Current Year Score: 67.31

2020

Transparency International

6.1.1f

Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.1g

Human rights risk (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?

Very clear, established and accepted = 4, Clear, established and accepted = 3, One of the three criteria (clear, established, accepted) is missing = 2, Two of the three criteria (clear, established, accepted) are missing = 1, Not clear, not established, not accepted = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption?

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.4b

What is the level of illicit arms flows within the country?

4 = Very high, 3 = High, 2 = Moderate, 1 = Low, 0 = Very low

Current Year Score: 1

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

How high is the risk of organized criminal activity to the government or businesses in the country?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

Current Year Score: 3

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 99.9

2008-2018

United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO);
The Economist Intelligence Unit

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.72

2018

United Nations Development Programme (UNDP); The Economist Intelligence Unit

6.2.3 Social inclusion

6.2.3a

Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)

Input number

Current Year Score: 0.24

2008-2018

World Bank; Economist Impact

6.2.3b

Share of employment in the informal sector

Greater than 50% = 2, Between 25-50% = 1, Less than 25% = 0

Current Year Score: 0

There is no evidence that Monaco has any portion of its population working in the informal sector. Statistics from Monaco Statistics around employment did not report, for 2019, any worker in the informal sector. [1] There is no further evidence in the ILOSTAT database and the World Bank. [2,3]

[1] Monaco Statistics. 2020. "Focus". [<https://www.monacostatistics.mc/Publications/Focus>]. Accessed November 2020.

[2] ILOSTAT. "Monaco". [<https://ilostat.ilo.org/es/data/country-profiles/>]. Accessed November 2020.

[3] World Bank. "Informal employment (% of total non-agricultural employment) - Monaco".

[<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS?locations=MC>]. Accessed November 2020.

6.2.3c

Coverage of social insurance programs (% of population)

Scored in quartiles (0-3, where 3=best)

Current Year Score: 3

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 1

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

Current Year Score: 2

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: -

Latest available.

World Bank; Economist Impact calculations

6.3 INFRASTRUCTURE ADEQUACY

6.3.1 Adequacy of road network

6.3.1a

What is the risk that the road network will prove inadequate to meet needs?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 4

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

What is the risk that air transport will prove inadequate to meet needs?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 4

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 4

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 100

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: 0

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 4

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 89.4

2018

United Nations; World Bank, UNICEF; Institute for Health Metrics and Evaluation (IHME); Central Intelligence Agency (CIA)
World Factbook

6.5.1b

Age-standardized NCD mortality rate (per 100 000 population)

Input number

Current Year Score: 466.85

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 35.15

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 27.43

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: -

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 99

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 99

2017

UNICEF; Economist Impact

6.5.3 Public healthcare spending levels per capita

6.5.3a

Domestic general government health expenditure per capita, PPP (current international \$)

Input number

Current Year Score: 2556.53

2018

WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a

Trust medical and health advice from the government

Share of population that trust medical and health advice from the government , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018

6.5.4b

Trust medical and health advice from medical workers

Share of population that trust medical and health advice from health professionals , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018