

Seychelles

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

CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH POTENTIAL FOR INTERNATIONAL CONCERN	4
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	8
1.3 Biosecurity	15
1.4 Biosafety	23
1.5 Dual-use research and culture of responsible science	26
1.6 Immunization	29
CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN	30
2.1 Laboratory systems strength and quality	30
2.2 Laboratory supply chains	33
2.3 Real-time surveillance and reporting	34
2.4 Surveillance data accessibility and transparency	38
2.5 Case-based investigation	45
2.6 Epidemiology workforce	48
CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC	50
3.1 Emergency preparedness and response planning	50
3.2 Exercising response plans	55
3.3 Emergency response operation	58
3.4 Linking public health and security authorities	60
3.5 Risk communications	61
3.6 Access to communications infrastructure	65

3.7 Trade and travel restrictions	66
-----------------------------------	----

CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 68

4.1 Health capacity in clinics, hospitals, and community care centers	68
---	----

4.2 Supply chain for health system and healthcare workers	71
---	----

4.3 Medical countermeasures and personnel deployment	76
--	----

4.4 Healthcare access	77
-----------------------	----

4.5 Communications with healthcare workers during a public health emergency	79
---	----

4.6 Infection control practices and availability of equipment	81
---	----

4.7 Capacity to test and approve new medical countermeasures	82
--	----

CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 85

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	85
---	----

5.2 Cross-border agreements on public health and animal health emergency response	86
---	----

5.3 International commitments	87
-------------------------------	----

5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	89
--	----

5.5 Financing	90
---------------	----

5.6 Commitment to sharing of genetic and biological data and specimens	93
--	----

CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL THREATS 95

6.1 Political and security risk	95
---------------------------------	----

6.2 Socio-economic resilience	99
-------------------------------	----

6.3 Infrastructure adequacy	101
-----------------------------	-----

6.4 Environmental risks	102
-------------------------	-----

6.5 Public health vulnerabilities	103
-----------------------------------	-----

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 evidence that Seychelles has a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles "conducted a 'One Health' stakeholder workshop to develop a situational analysis in May 2017, as part of the process for developing a National Action Plan for Antimicrobial Resistance." [1] However, this plan is currently in draft form and not available on their Ministry of Health or Ministry of Fisheries and Agriculture website. [1,2,3] The "Seychelles National Health Policy", published in June 2015 by the Ministry of Health, outlines the policy objective of supporting and facilitating "the implementation of all evidence-based policies, regulations, strategies, programmes and projects that seek to prevent and control antimicrobial resistances." [4] However, there is no evidence of such policies or regulations having yet been ratified. The Ministry of Health's "Health of Our Nation: Health Sector Performance Report 2017" also recognizes the importance of "preventing anti-microbial resistance" as part of promoting health under the Sustainable Development Goals, but similarly does not put forth a specific plan on the subject. [5] The 2019 edition of the report (the most recent) does not mention AMR. [6] Seychelles and the World Health Organization (WHO) held a three-day workshop in May of 2017 "to discuss strategies to fight anti-microbial resistance (AMR) in the country". The WHO description of the event says that "Seychelles is thus now well on track to achieve" the completion of an AMR national action plan by 2017. [7] However, as stated above, there is no evidence of such a plan having been published, and there is no national AMR plan can be found on the WHO library of National Action Plans. [9] One of the recommendations of the JEE is for Seychelles to "complete the development of the National Action Plan for Antimicrobial Resistance, with input from the human, animal, agricultural and environmental health sectors." [1]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [http://mofa.gov.sc/]. Accessed 28 December 2020.

[4] Republic of Seychelles. "Seychelles National Health Policy." June 2015. [http://www.health.gov.sc/wp-content/uploads/National-Health-Policy_final-26062015.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. "Health of Our Nation. Health Sector Performance Report 2017." 2017. [http://www.health.gov.sc/wp-content/uploads/summary-hspr.pdf]. Accessed 28 December 2020.

[6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[7] World Health Organization (WHO). "WHO supports steps to develop the country's National Action Plan on Antimicrobial Resistance." May 2017. [https://afro.who.int/fr/node/2611]. Accessed 28 December 2020.

[8] World Health Organization (WHO). "Antimicrobial resistance Library of national action plans."

[<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 28 December 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 not enough evidence that Seychelles has a national laboratory which tests for AMR priority pathogens. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "the national clinical laboratory has been designated as the national reference laboratory for AMR, and conducts AMR detection using CLSI AST (Clinical Laboratory Standards Institute Antimicrobial Sensitivity Test). The country is yet to enrol in GLASS (the WHO Global AMR Surveillance System)." [1] However, it is unclear whether the laboratory can test for WHO defined 7+1 priority AMR pathogens as the National Clinical Laboratory of Seychelles does not have a public website. The JEE does describe some abilities of the national clinical laboratory, for instance noting that "the national clinical laboratory isolates and identifies bacterial agents from clinical specimens. It has the capacity to test susceptibility on all infectious isolates using the disc diffusion method, and to interpret results according to CLSI standards" and that "rapid testing for leptospirosis and Dengue fever is available at the Clinical Laboratory." [1] However, the JEE also states that "there are inadequate human resources to address AMR, and training in performing and interpreting AST (antimicrobial sensitivity testing) is limited" and "there is no established system for surveillance of resistant pathogens for human, animal and environmental health." [1] For this reason, one of the recommendations of the JEE is to "increase investment into human, regulatory and infrastructural (laboratory) resources in a manner that will improve AMR-related activities." [1] No evidence of such testing capabilities can be found on the public websites of the Ministry of Health, the Ministry of Fisheries and Agriculture, or the National Institute of Health and Social Studies. [2,3,4] No national AMR plan can be found in the WHO library of National Action Plans. [5]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[5] World Health Organization (WHO). "Antimicrobial resistance Library of national action plans." [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 28 December 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 evidence of Seychelle conducting detection or surveillance activities for antimicrobial residues or AMR organisms. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "Seychelles has inadequate laboratory capacity to test water, air and soil for chemicals." [1] Furthermore, Seychelles does not have a National Action Plan on AMR, according to the World Health Organization. [2] Lastly, no evidence of surveillance or detection for AMR organisms or antimicrobial residues can be found via the public websites of the Ministry of Health or the Ministry of Fisheries and Agriculture. [3,4] The website of the Ministry of Environment, Energy and Climate Change was not working at the time

research was conducted.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] World Health Organization. "Antimicrobial resistance Library of national action plans." [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 28 December 2020.

[3] Ministry of Health. [http://www.health.gov.sc/]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [http://mofa.gov.sc/]. Accessed 28 December 2020.

[5] Ministry of Environment, Energy and Climate Change. [http://www.meec.gov.sc/]. Accessed 28 December 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: 0

There is not enough evidence that Seychelles has national legislation or regulation in place requiring prescriptions for antibiotic use for humans. The country has regulations that pertain to prescription medicines in general, but their application to antibiotics is unclear. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "although Seychelles has no up-to-date legislation on antibiotic use in animals and humans (the current legislation covering this area is the Medicines Act), there is a restriction on importing and dispensing antibiotics for human and animal health." (The JEE does not provide a date for the Medicines Act, and a law by that title cannot be found elsewhere online.) [1] However, "there are national antibiotic guidelines for use in hospitals and community health services" and "clear standard operating procedures (SOPs) have been developed for prescribing 'reserved' antibiotics. This can only be done at hospitals." [1] Despite these statements in the JEE, no evidence of any such SOPs or guidelines can be found on the website of the Ministry of Health, which is also the Medicines Regulatory Authority, according to the World Health Organization. [2,3] Further, although the "Seychelles National Medicine Policy" under its Rational use of medicines clause states that "the rational prescribing, dispensing and use of all medicines by patients and health workers" must be ensured; no specific mention of antibiotics is made. [4] Similarly, the Pharmacy Act of 2012 also mandates that "pharmacists are expressly forbidden to make, mix, prepare, compound or dispense for sale, any medicine or medicinal preparation, except according to a written prescription signed by a duly qualified medical practitioner, only or in accordance with the formularies or directions of the British Pharmacopoeia or of any Codex or formulary legally employed in foreign countries." [5] But the Pharmacy Act of 2012 also does not make specific mention of antibiotic use in humans. The national clinical laboratory does not have an online presence, and no national AMR plan can be found on the WHO library of National Action Plans. [6] No other relevant legislation can be found in the Ministry of Health's online list of "health laws" or in an online repository of the laws of Seychelles compiled by AfricanLII, a program at the University of Cape Town. [7,8] The National Institute of Health and Social Services does not share relevant information via its public website. [9]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 28 December 2020.

[3] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 28

December 2020.

[4] Republic of Seychelles. "Seychelles National Medicine Policy." May 2009.

[<https://digicollections.net/medicinedocs/documents/s19286en/s19286en.pdf>]. Accessed 28 December 2020.

[5] Republic of Seychelles. "Pharmacy Act." June 2012. [<https://seylil.org/sc/legislation/consolidated-act/169>]. Accessed 28 December 2020.

[6] World Health Organization. "Antimicrobial resistance Library of national action plans."

[<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 28 December 2020.

[7] Ministry of Health. "Health Laws". [<http://www.health.gov.sc/index.php/health-care-laws/>]. Accessed 28 December 2020.

[8] SeyLII. "Laws of Seychelles". [<https://seylil.org/sc/legislation/laws-of-seychelles>]. Accessed 28 December 2020.

[9] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 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 not enough evidence that Seychelles has national legislation or regulation in place requiring prescriptions for antibiotic use for animals. The country has regulations that pertain to prescription medicines in general, but their application to antibiotics is unclear. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "although Seychelles has no up-to-date legislation on antibiotic use in animals and humans (the current legislation covering this area is the Medicines Act), there is a restriction on importing and dispensing antibiotics for human and animal health." (The JEE does not provide a date for the Medicines Act, and a law by that title cannot be found elsewhere online.) [1] However, "there are national antibiotic guidelines for use in hospitals and community health services" and "clear standard operating procedures (SOPs) have been developed for prescribing 'reserved' antibiotics. This can only be done at hospitals." [1] Despite these statements in the JEE, no evidence of any such SOPs or guidelines can be found on their Ministry of Health website, which is also the Medicines Regulatory Authority, according to the World Health Organization. [2,3] Further, although the "Seychelles National Medicine Policy" under its Rational use of medicines clause states that "the rational prescribing, dispensing and use of all medicines by patients and health workers" must be ensured; however, no specific mention of antibiotics is made. [4] Similarly, the Pharmacy Act of 2012 also mandates that "pharmacists are expressly forbidden to make, mix, prepare, compound or dispense for sale, any medicine or medicinally preparation, except according to a written prescription signed by a duly qualified medical practitioner, only or in accordance with the formularies or directions of the British Pharmacopoeia or of any Codex or formulary legally employed in foreign countries." [5] But the Pharmacy Act, too, does not make specific mention of antibiotic use, in animals or otherwise. The national clinical laboratory does not have an online presence, and no national AMR plan can be found on the WHO library of National Action Plans. [6] No other relevant legislation can be found in the Ministry of Health's online list of "health laws" or in an online repository of the laws of Seychelles compiled by AfricanLII, a program at the University of Cape Town. [7,8] The National Institute of Health and Social Services does not share relevant information via its public website. [9]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 28 December 2020.

[4] Republic of Seychelles. "Seychelles National Medicine Policy." May 2009.

[<https://digicollections.net/medicinedocs/documents/s19286en/s19286en.pdf>]. Accessed 28 December 2020.

[5] Republic of Seychelles. "Pharmacy Act." June 2012. [<https://seylil.org/sc/legislation/consolidated-act/169>]. Accessed 28 December 2020.

[6] World Health Organization. "Antimicrobial resistance Library of national action plans."

[<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 28 December 2020.

[7] Ministry of Health. "Health Laws". [<http://www.health.gov.sc/index.php/health-care-laws/>]. Accessed 28 December 2020.

[8] SeyLII. "Laws of Seychelles". [<https://seylil.org/sc/legislation/laws-of-seychelles>]. Accessed 28 December 2020.

[9] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 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 insufficient evidence to indicate that Seychelles has a national law, plan, or equivalent strategy document, on zoonotic disease. According to the Joint External Evaluation report (JEE) for Seychelles, conducted in March 2018, although "a provisional list exists that names seven priority zoonotic diseases of public health importance," "a national multisectoral surveillance plan for these priority diseases does not yet exist." [1] The "Public Health Act, 2015" lists "Zoonotic diseases" under its "Notifiable Diseases" section but does not address the subject or any specific zoonotic disease. [2] The "Animal and Plant Biosecurity Act, 2014" makes no specific mention of zoonotic diseases either, and is instead focused on controlling the movement of plants and animals and their products into the country. [3] The World Organization for Animal Health (OIE) PVS Evaluation report, from July 2011, states that "despite, or due to, the good animal health status in the Seychelles, there is currently no systematic approach regarding contagious animal disease and animal health issues, limited knowledge of the current disease situation, and no shared strategy for the future." [4] The report recommends that "a comprehensive Animal Health Strategy for contagious diseases should be developed, in collaboration with all stakeholders, to set up priorities" and that "the Strategy should identify which diseases (if any) should be the focus of preparedness and contingency plans, identification and traceability needs, etc." [4] No additional relevant information is shared via the public websites of the Ministry of Health or the Ministry of Fisheries and Agriculture. [5,6]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 2020.

[3] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014.

[https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.

[4] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles."

[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[6] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 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 evidence that Seychelles has national legislation, plans or equivalent strategy documents which include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, the country does not have "a multi-sectoral prevention and control/preparedness and response plans for priority zoonotic diseases, including contingency plans for outbreaks". Seychelles plans for specific zoonotic diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. [1] The Seychelles National Integrated Emergency Management Plan of 2019 does not mention zoonoses or contain any relevant information. [2] The World Health Organization (WHO) International Health Regulations Strategic Partnership Portal does not list any relevant plans for Seychelles. [3] There is no relevant information shared via the public websites of the Ministry of Health or the Ministry of Agriculture. [4,5] There is no evidence of relevant academic studies or media reports.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[3] World Health Organization (WHO). "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)". [<https://extranet.who.int/sph/influenza-plan>]. Accessed 28 December 2020.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 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 evidence that Seychelles has national plans, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern. According to the Joint External Evaluation report (JEE) for Seychelles, conducted in March 2018, although "a provisional list exists that names seven priority zoonotic diseases of public health importance," "a national multisectoral surveillance plan for these priority diseases does not yet exist." [1] The "Public Health Act, 2015" lists "Zoonotic diseases" under its "Notifiable Diseases" section but does not address the subject or any specific zoonotic disease. [2] The "Animal and Plant Biosecurity Act, 2014" makes no specific mention of zoonotic diseases either, and is instead focused on controlling the movement of plants and animals and their products into the country. [3] The World Organization for Animal Health (OIE) PVS Evaluation report, from July 2011, states that "despite, or due to, the good animal

health status in the Seychelles, there is currently no systematic approach regarding contagious animal disease and animal health issues, limited knowledge of the current disease situation, and no shared strategy for the future." [4] The report recommends that "a comprehensive Animal Health Strategy for contagious diseases should be developed, in collaboration with all stakeholders, to set up priorities" and that "the Strategy should identify which diseases (if any) should be the focus of preparedness and contingency plans, identification and traceability needs, etc." [4] Seychelles plans for specific zoonotic diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. [1] No additional relevant information is shared via the public websites of the Ministry of Health or the Ministry of Fisheries and Agriculture. [5,6] The Seychelles National Integrated Emergency Management Plan of 2019 does not mention zoonoses or contain any relevant information. [7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 2020.

[3] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014. [https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.

[4] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles." [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[6] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[7] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 insufficient evidence to show that Seychelles has a department, agency or similar unit dedicated to zoonotic disease that functions across ministries. According to the Joint External Evaluation (JEE) of the IHR Core Capacities of Seychelles, conducted in March 2018, it is recommended that Seychelles "establish a national One Health coordination committee, identify members, formulate TORs, develop SOPs, and formalize it through endorsement by senior authorities" to tackle zoonotic issues. [1] In addition, "some functions of the animal health sector are under the jurisdiction of the National Biosecurity Agency (NBA), in line with the Animal and Plant Biosecurity Act 2014. These include issuance of import permits for animal source foods, laboratory diagnosis, and border inspections", but zoonotic disease management is not a part of this. [1] Lastly, no such agencies handling zoonotic diseases can be found in their OIE PVS Evaluation report, or on the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture. [2,3,4] The Seychelles National Integrated Emergency Management Plan of 2019 does not mention zoonoses or contain any relevant information. [5]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [4] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles." [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 2020.
- [5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 insufficient evidence to suggest that Seychelles has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. According to the Joint External Evaluation report (JEE) for Seychelles, conducted in March 2018, "the Public Health Act makes provisions for mandatory reporting of unusual diseases and deaths in animals"; however, "Seychelles needs to embrace this concept and set up a mechanism to promote the One Health agenda and enhance collaboration among relevant sectors." [1] While the Public Health Act specifies (in Part VIII) that reporting of animal diseases (and other diseases as defined in the law) must take place "electronically or in writing within 24 hours to the [Public Health] Commissioner", the legislation does not define or establish a mechanism for making such a report. [2] In 2018, the Disease Surveillance and Response Unit recently signed an MoU with Airtel Seychelles, a data service provider, that will provide "the unit with essential devices that will facilitate collaboration and data collection through a web-based surveillance system established between the unit and all health centres." [3] However, this does not constitute a national mechanism for owners of livestock to report on disease surveillance and no such mechanism is available either on the Ministry of Health or Ministry of Fisheries and Agriculture websites. [4,5] Lastly, their OIE PVS Evaluation report from July 2011, states that Seychelles has "no structured national disease surveillance system, no formal network for early detection, no procedures for early warning." [6]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Government of Seychelles. 2015. "Public Health Act". [<https://seylil.org/sc/sc/legislation/Act%2013%20of%202015%20Public%20Health%20Act%2C%202015.pdf>]. Accessed 28 December 2020.
- [2] Seychelles Ministry of Health. "Disease Surveillance and Response goes digital." July 2018. [<http://www.health.gov.sc/index.php/news-posts/disease-surveillance-response-goes-digital/>]. Accessed 28 December 2020.
- [3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [5] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles."

[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 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 evidence that Seychelles has laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). Although the country does have a Data Protection Act (2002), the International Telecommunications Union (ITU) describes it as a "partial document". [1] Text of the law shared on a government website does not contain any relevant provisions, and contains a note saying the law "has not been brought into operation" as of the end of 2010. [2] An online repository of the laws of Seychelles compiled by AfricanLII, a program at the University of Cape Town, describes the law as "not yet in force". [3] No such laws or guidelines are outlined in the World Organisation for Animal Health (OIE) PVS Evaluation Report (published in 2011) or the Joint External Evaluation report (published in 2018). [4,5] No relevant information is shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture websites. [6,7]

[1] International Telecommunications Union. "Cyberwellness Profile Republic of Seychelles." March 2015.

[https://www.itu.int/en/ITU-D/Cybersecurity/Documents/Country_Profiles/Seychelles.pdf]. Accessed 28 December 2020.

[2] Government of Seychelles. 2003. "Data Protection Act".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 2020.

[3] Laws of Seychelles. "Data Protection Act." 2002. [https://greybook.seyilii.org/w/se/2003-9#!fragment/zoupio-_Toc385830841/BQCwhgziBcwMYgk4DsDWszIQewE4BUBTADwBdoAvbRABwEtsBaAfX2zgGYAOAVi44AMXACwBGAJQAaZNIK EIARUSFCaT2gByDZlhx2ADYGAwkjTQAhMh2EwuBEpXqtNuwgDKeUgCF1AJQBRABkAgDUAQQA5YwDJUjAAI2hSdnFxiA]. Accessed 28 December 2020.

[4] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[6] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[7] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles."

[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 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 insufficient evidence to show that Seychelles conducts surveillance of zoonotic disease in wildlife. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "in the animal health sector ... the surveillance system is not well established. Although there is an initiative to digitize reporting through adoption and streamlining of a mobile-

based reporting system, the animal health surveillance system remains characterized by lack of clear structure, inadequate manpower and limited funding." [1] The JEE also states that, "in general, routine reporting of zoonotic diseases from both [the animal health and the public health] sectors is still suboptimal and requires improvement." [1] No evidence of surveillance of zoonotic diseases in wildlife can be found on their Ministry of Health or Ministry of Fisheries and Agriculture websites. [2,3] the World Organisation for Animal Health (OIE) PVS Evaluation Report (published in 2011) for Seychelles states that there are "no structured national disease surveillance system, no formal network for early detection, no procedures for early warning." [4]

- [1] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles." [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 2020.
- [2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 28 December 2020.
- [3] Ministry of Fisheries and Agriculture. [http://mofa.gov.sc/]. Accessed 28 December 2020.
- [4] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles." [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 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: 10.24

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 9.22

2018

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 evidence that Seychelles has national plans, guidelines, or laws that account for controlling or responding to zoonoses, let alone such a plan that includes mechanisms for working with the private sector. According to the Joint External Evaluation report (JEE) for Seychelles, conducted in March 2018, although "a provisional list exists that names seven priority zoonotic diseases of public health importance," "a national multisectoral surveillance plan for these priority diseases does not yet exist." [1] The "Public Health Act, 2015" lists "Zoonotic diseases" under its "Notifiable Diseases" section but does not address the subject or any specific zoonotic disease. [2] The "Animal and Plant Biosecurity Act, 2014" makes no specific mention of zoonotic diseases either, and is instead focused on controlling the movement of plants and animals and their products into the country. [3] The World Organization for Animal Health (OIE) PVS Evaluation report, from July 2011, states that "despite, or due to, the good animal health status in the Seychelles, there is currently no systematic approach regarding contagious animal disease and animal health issues, limited knowledge of the current disease situation, and no shared strategy for the future." [4] The report recommends that "a comprehensive Animal Health Strategy for contagious diseases should be developed, in collaboration with all stakeholders, to set up priorities" and that "the Strategy should identify which diseases (if any) should be the focus of preparedness and contingency plans, identification and traceability needs, etc." [4] Seychelles plans for specific zoonotic diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. [1] No additional relevant information is shared via the public websites of the Ministry of Health or the Ministry of Fisheries and Agriculture. [5,6] The Seychelles National Integrated Emergency Management Plan of 2019 does not mention zoonoses or contain any relevant information. [7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 2020.

[3] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014. [https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.

[4] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles." [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[6] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[7] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan".

[<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 evidence that Seychelles has in place a record, updated within the past 5 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. According to the Joint External Evaluation report (JEE), published in 2018, "there is no inventory of pathogens kept in Seychelles laboratories." [1] There is no evidence of such an inventory or inventory management system on the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture, and the country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [2,3,4] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM), with the aim of improving international cooperation and preventing suspicion arising between Convention states parties. But although Seychelles has submitted Confidence Building Measure (CBM) reports for 2017 and 2020, the submission records are not publicly available. [5] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any relevant legislation. [6,7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[5] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[6] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[7] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 not enough evidence that Seychelles has in place legislation related to biosecurity which address requirements such as physical containment, operation practices, and failure reporting system for facilities in which especially dangerous pathogens and toxins are stored or processed. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "legislation covering biosecurity and biosafety exists under the Animal and Plant Biosecurity Act 2014" which "involves the control of movement of animals, plants, and their products in order to prevent the establishment and spread of invasive alien species, animal, plant pests and diseases that can harm human health." [1,2] Although the "Animal and Plant Biosecurity Act, 2014" does address physical containment and failure reporting systems, these provisions apply to the importation and movement of plant and animal products into and within the country, and do not relate to facilities where pathogens and toxins stored or processed. [3] As the JEE mentions, "while elements addressing biosecurity are present in various acts, there is no comprehensive national system to ensure pathogens are secure [and] there is no inventory of pathogens kept in Seychelles laboratories." The country's "National Biosecurity Agency, enforces sanitary and phytosanitary (SPS) measures in line with international standards, to avert the risk of introducing new pathogens into Seychelles" and there is no evidence that it manages facilities where dangerous pathogens and toxins are stored or processed. [1] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM), with the aim of improving international cooperation and preventing suspicion arising between Convention states parties. Although Seychelles has submitted Confidence Building Measure (CBM) reports for 2017 and 2020, the submission records are not available to the public. [7] There is no additional relevant information shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture websites, and the country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [4,5,6] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [8,9]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Seychelles Ministry of Tourism, Civil Aviation, Ports and Marine. "Biosecurity." [<http://tourism.gov.sc/risk-management/biosecurity/>]. Accessed 28 December 2020..

[3] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014. [https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[6] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet/>]. Accessed 28 December 2020.

[7] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[8] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[9] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 insufficient evidence to show that Seychelles has an established agency responsible for the enforcement of biosecurity legislation and regulations. Seychelles has a National Biosecurity Agency (NBA), which was set up under the Animal and Plant Biosecurity Act, 2014. However, both the act and the NBA deal with biosecurity in terms of preventing invasive species, and do not deal with biological agents and toxins. The Ministry of Foreign Affairs and Tourism describes the NBA as the agency "responsible for biosecurity protection in Seychelles with the mandate to prevent the introduction and spread of animal and plant pest and disease including Invasive Alien Species. This involves the control of movement of animals, plants, and their products in order to prevent the establishment and spread of invasive alien species, animal, plant pests and diseases that can harm human health." [1] There is no evidence that the NBA supervises facilities handling dangerous pathogens or related regulations. As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM), with the aim of improving international cooperation and preventing suspicion arising between Convention states parties. Although Seychelles has submitted Confidence Building Measure (CBM) reports for 2017 and 2020, the submission records are not available to the public. [2] The Joint External Evaluation report (JEE) for Seychelles, published in 2018, does not name any relevant agency. [3] No additional relevant information is shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture websites, and the country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [4,5,6] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [7,8]

[1] eychelles Ministry of Tourism, Civil Aviation, Ports and Marine. "Biosecurity." [<http://tourism.gov.sc/risk-management/biosecurity/>]. Accessed 28 December 2020.

[2] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[6] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[7] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[8] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 public evidence that shows Seychelles has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. According to the Joint External Evaluation report (JEE), published in 2018, "there is no inventory of pathogens kept in Seychelles laboratories." and that "no laboratories in Seychelles are storing dangerous pathogens other than ATCC (American Type Culture Collection) quality control strains". The JEE goes on to say that "many of the country's laboratories were built without biosecurity in mind, there are locked fridges, and access to the laboratories—and to special units within them—is restricted. The National Public Health Laboratory cultures some class III organisms in its biosafety level (BSL) 2 laboratory—mainly multidrug resistant tuberculosis (MDR TB)." [1] Despite the existence of these precautions, there is no evidence of such an inventory or inventory management system on the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture, and the country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [2,3,4] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM), with the aim of improving international cooperation and preventing suspicion arising between Convention states parties. But although Seychelles has submitted Confidence Building Measure (CBM) reports for 2017 and 2020, the submission records are not publicly available. [5] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any relevant legislation. [6,7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[5] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[6] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[7] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 public evidence of Seychelles having in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax or Ebola, which would preclude culturing a live pathogen. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles has plans for Ebola and the plague — "Ebola Virus Disease Preparedness and Response Plan, 2014" and "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014." [1] However, neither of these plans are shared via a publicly available website, so it is not possible to determine their contents. Descriptions of response measures such as screening and passive surveillance of passengers travelling to and from places at risk for Ebola do not mention PCR-based diagnostic testing. [2] No other relevant information is shared via the public websites of the Ministry of Health, Ministry of Fisheries and Agriculture or Department of Risk and Disaster Management (which does not have a working website). [3,4] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [5] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any relevant legislation. [6,7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Seychelles Ministry of Health. "Public Health Authority Implements Monitoring Measures Amidst Ebola Outbreak." May 2018. [<http://www.health.gov.sc/index.php/2018/05/13/public-health-authority-implements-monitoring-measures-amidst-ebola-outbreak/>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet/>]. Accessed 28 December 2020.

[6] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[7] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence of Seychelles requiring 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. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, indicates that no such training program currently exists, and makes a recommendation that Seychelles establish "a [biosafety and biosecurity] training programme is required that includes refresher training and a train-the-trainers programme, and which shares best practice from international experience". [1] A "priority action" recommended by the JEE is that Seychelles "implement a national train-the-trainers programme sharing

international standards and experiences in biosafety and biosecurity." [1] There is no relevant information shared via the public websites of the Ministry of Health, the Ministry of Fisheries and Agriculture, or the National Institute of Health and Social Studies. [2,3,4] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [5] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles has submitted CBM reports for 2017 and 202, the submission records are not available to the public. [6] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any relevant legislation. [7,8]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [http://mofa.gov.sc/]. Accessed 28 December 2020.

[4] National Institute of Health and Social Studies. [http://www.nihss.gov.sc/]. Accessed 28 December 2020.

[5] Office of the President of the Republic of Seychelles. "The Cabinet". [http://www.statehouse.gov.sc/the-cabinet]. Accessed 28 December 2020.

[6] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [https://bwc-ecbm.unog.ch/state/seychelles]. Accessed 28 December 2020.

[7] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/]. Accessed 28 December 2020.

[8] Office of the Attorney General. "Laws of Seychelles".

[http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles]. Accessed 28 December 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 evidence that Seychelles has regulations or licensing conditions which 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. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, does not describe the existence of such checks. [1] The Seychelles' "Health Professional Council Strategic Plan 2015 - 2020", which has the mission of ensuring "that all Health Professionals are competent to practice and to protect the public by promoting the highest professional standards", does not mention any such checks. [2] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public.

[3] There is no other relevant information shared via the public websites of the Ministry of Health; the Ministry of Fisheries and Agriculture; Ministry of Employment and Social Affairs; or the Health Professionals Council Seychelles. [4,5,6,7] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [8] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any relevant legislation. [9,10]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Health Professionals Council Seychelles. "Health Professional Council Strategic Plan 2015 - 2020." May 2015. [http://www.hpcseychelles.org/wp-content/uploads/2015/09/Health-Professionals-Council-Strategic-Plan-2015-2020-1.pdf]. Accessed 28 December 2020.

[3] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [https://bwc-ecbm.unog.ch/state/seychelles]. Accessed 28 December 2020.

[4] Ministry of Health. [http://www.health.gov.sc/]. Accessed 28 December 2020.

[5] Ministry of Fisheries and Agriculture. [http://mofa.gov.sc/]. Accessed 28 December 2020.

[6] Ministry of Employment and Social Affairs. [http://www.employment.gov.sc/]. Accessed 28 December 2020.

[7] Health Professionals Council Seychelles. [http://www.hpcseychelles.org/]. Accessed 28 December 2020.

[8] Office of the President of the Republic of Seychelles. "The Cabinet". [http://www.state.house.gov.sc/the-cabinet]. Accessed 28 December 2020.

[9] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/]. Accessed 28 December 2020.

[10] Office of the Attorney General. "Laws of Seychelles".

[http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles]. Accessed 28 December 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: 0

There is no evidence that Seychelles has publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B). According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "there is an organised system in place for referring specimens from clinics, hospitals and private practitioners. This is efficient particularly because of good communication and transportation links (boat, sea and road)." [1] At the same time, the JEE notes that there "there is a need to improve intersectoral collaboration" between the transportation sector and other sectors to "strengthen the specimen transport system." [1] The JEE further notes that Seychelles "provides in-country transportation for local diagnostics; and can dispatch specimens out of the country to identified reference laboratories", but does not describe the existence of relevant national regulations. [1] The JEE recommends that Seychelles "Standardize specimen transport mechanisms to meet international best practice." [1] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles

has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [2] No other relevant information is shared via the public websites of the Ministry of Health; Ministry of Fisheries and Agriculture; Ministry of Foreign Affairs and Tourism; or Seychelles Land Transport Authority. [3,4,5,6] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [7] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any relevant legislation. [8,9]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Foreign Affairs and Tourism. [<http://tourism.gov.sc/>]. Accessed 28 December 2020.

[6] Seychelles Land Transport Authority. [<http://www.slta.sc/>]. Accessed 28 December 2020.

[7] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[8] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[9] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence of Seychelles having a national legislation, regulation, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. The Joint External Evaluation report (JEE) for Seychelles, published 2018, makes no mention of any such guidance in place. [1] There is relevant information shared via the public websites of the Ministry of Health; the Ministry of Fisheries and Agriculture; the Ministry of Foreign Affairs and Tourism; the Seychelles Land Transport Authority; or the Ministry of Finance, Trade Investment and Economic Planning. [2,3,4,5,6] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [7] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [8] The Seychelles' "Animal and Plant Biosecurity Act, 2014" has very general guidelines for "Biosecurity Border Control", but they are concerned with general pest and disease risks and not for especially dangerous pathogens, toxins and pathogens with pandemic potential; neither does the act address end user screening. [9] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification

Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [9,10]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [5] Ministry of Foreign Affairs and Tourism. [<http://tourism.gov.sc/>]. Accessed 28 December 2020.
- [6] Seychelles Land Transport Authority. [<http://www.slta.sc/>]. Accessed 28 December 2020.
- [6] RMinistry of Finance, Trade, Investment and Economic Planning. [<http://www.finance.gov.sc/>]. Accessed 28 December 2020.
- [7] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.
- [8] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.
- [9] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014. [https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.
- [10] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.
- [11] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 insufficient evidence to show that that Seychelles has in place national biosafety legislation or regulations. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "legislation covering biosecurity and biosafety exists under the Animal and Plant Biosecurity Act 2014" which "involves the control of movement of animals, plants, and their products in order to prevent the establishment and spread of invasive alien species, animal, plant pests and diseases that can harm human health." [1,2] However, the "Animal and Plant Biosecurity Act, 2014" does not address biosafety as it relates to the prevention of accidents that involve the release of harmful biological substances; nor does it contain measures that are primarily designed to protect people who work with these substances. [3] Further, though the Seychelles has a "Final Draft National Biosafety Framework", it is focused on biotechnology and GMOs and the need to "manage any risk from the deliberate or accidental release of GMOs into the environment." [4] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [5] There is no additional relevant information shared via the public

websites of the Ministry of Health or Ministry of Fisheries and Agriculture websites. [6,7] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [8] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [9,10]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Seychelles Ministry of Tourism, Civil Aviation, Ports and Marine. "Biosecurity." [<http://tourism.gov.sc/risk-management/biosecurity/>]. Accessed 28 December 2020.
- [3] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014. [https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.
- [4] Republic of Seychelles. "Final Draft National Biosafety Framework." [https://www.leaux.net/URLS/General/Seychelles_National_Biosafety_Framework.pdf]. Accessed 28 December 2020.
- [5] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.
- [6] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [7] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [8] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.
- [9] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.
- [10] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence that Seychelles has an established agency responsible for the enforcement of biosafety legislation and regulations. According to the Joint External Evaluation report (JEE) for Seychelles, published in March 2018, "The Public Health Act of 2014 makes some mention of biosafety, and the National Public Health Laboratory has a draft Biosafety Manual, although this is not replicated in other laboratories." [1] However, the "Animal and Plant Biosecurity Act, 2014" does not address biosafety as it relates to the prevention of accidents that involve the release of harmful biological substances; nor does it contain measures that are primarily designed to protect people who work with these substances. [2] The JEE also notes the existence of the National Biosecurity Agency (NBA), established under the Animal and Plant Biosecurity Act. However, this body preventing "the establishment and spread of invasive alien species, animal, plant pests and diseases that can harm human health", and not with biosafety. [1] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [3] There is no additional relevant information shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture websites. [4,5] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons

Convention Legislation Database lists any other relevant legislation. [6,7]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Republic of Seychelles. "Animal and Plant Biosecurity Act, 2014." April 2014. [https://www.wto.org/english/thewto_e/acc_e/syc_e/WTACCSYC53_LEG_4.pdf]. Accessed 28 December 2020.
- [3] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.
- [4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [5] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [6] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.
- [7] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 insufficient evidence to show that Seychelles 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. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "all laboratory staff are trained in biosafety, either during their course at the National Institute of Health and Social Sciences, or outside the country. Some refresher training takes place for established staff." [1] However, the JEE notes that Seychelles is lacking (and requires) "a training programme ... that includes refresher training and a train-the-trainers programme, and which shares best practice from international experience. This should cover both biosafety and biosecurity for public health and clinical laboratories, as well as animal laboratories when such facilities are commissioned." [1] The JEE thus recommends that Seychelles "implement a national train-the-trainers programme sharing international standards and experiences in biosafety and biosecurity." [1] No relevant information is shared via the public websites of the Ministry of Health; Ministry of Fisheries and Agriculture; or National Institute of Health and Social Studies. [2,3,4] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). Although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [5] Neither the government of Seychelle's online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [6,7]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.
- [3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [5] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.
- [6] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.
- [7] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 Seychelles has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential or other dual use research. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, makes no mention of such an assessment. [1] There is no relevant information shared via the public websites of the Ministry of Health or the Ministry of Fisheries and Agriculture. [2,3] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [4] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). But although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [5] Neither the government of Seychelles' online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [6,7]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.
- [3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.
- [4] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.
- [5] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [[COUNTRY SCORE JUSTIFICATIONS AND REFERENCES](https://bwc-</p>
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ecbm.unog.ch/state/seychelles]. Accessed 28 December 2020.

[6] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[7] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence of Seychelles having a national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins or pathogens with pandemic potential. The Joint External Evaluation (JEE) of the IHR Core Capacities of Seychelles, conducted in March 2018, makes no mention of Seychelles having such a policy. [1] Though the Seychelles has a "Final Draft National Biosafety Framework", it is focused on biotechnology and GMOs and the need to "manage any risk from the deliberate or accidental release of GMOs into the environment"; it does not address the oversight of dual use research. [2] There is no relevant information shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture. [3,4] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [5] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). But although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [6] Neither the government of Seychelles' online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [7,8]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Final Draft National Biosafety Framework."

[https://www.leaux.net/URLS/General/Seychelles_National_Biosafety_Framework.pdf]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[6] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[7] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[8] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence of Seychelles having an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential or other dual use research. The Joint External Evaluation (JEE) of the IHR Core Capacities of Seychelles, conducted in March 2018, makes no mention of Seychelles having such an agency. [1] Though the Seychelles has a "Final Draft National Biosafety Framework", it is focused on biotechnology and GMOs and the need to "manage any risk from the deliberate or accidental release of GMOs into the environment"; it does not address the oversight of dual use research. [2] There is no relevant information shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture. [3,4] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [5] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). But although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [6] Neither the government of Seychelles' online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [7,8]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Final Draft National Biosafety Framework." [https://www.leaux.net/URLS/General/Seychelles_National_Biosafety_Framework.pdf]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[6] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[7] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[8] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence of Seychelles having a national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. The Joint External Evaluation (JEE) of the IHR Core Capacities of Seychelles, conducted in March 2018, makes no mention of Seychelles having such a policy. [1] Though the Seychelles has a "Final Draft National Biosafety Framework", it is focused on biotechnology and GMOs and the need to "manage any risk from the deliberate or accidental release of GMOs into the environment"; it does not address the sale of synthesized DNA. [2] There is no relevant information shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture. [3,4] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [5] As a state party to the Biological Weapons Convention, Seychelles is required to submit annual reports on biological research to the United Nations Office at Geneva (UNOG) to comply with six Confidence-Building Measures (CBM). But although Seychelles has submitted CBM reports for 2017 and 2020, the submission records are not available to the public. [6] Neither the government of Seychelles' online repository of legislation nor the VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database lists any other relevant legislation. [7,8]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Final Draft National Biosafety Framework."

[https://www.leaux.net/URLS/General/Seychelles_National_Biosafety_Framework.pdf]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 2020.

[6] United Nations Office at Geneva. BWC Electronic Confidence Building Measures Portal. Seychelles. [<https://bwc-ecbm.unog.ch/state/seychelles>]. Accessed 28 December 2020.

[7] VERTIC (Verification Research Training and Information Centre) Biological Weapons Convention Legislation Database. 2020. "S". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>]. Accessed 28 December 2020.

[8] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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: 2

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: 1

There is evidence that Seychelles' national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests, but the tests are not named. The Joint External Evaluation report (JEE) for Seychelles, published in 2018 assigns the country a score of 4 in the category "D.1.1 Laboratory testing for detection of priority diseases", which indicates that the national laboratory system is capable of conducting five or more of the ten WHO core tests. [1, 2] Further, the JEE notes that "the SPHL [Seychelles Public Health Laboratory] undertakes surveillance activities and provides diagnostic testing for both human and animal health specimens, whereas the CL [Clinical Laboratory] provides routine clinical diagnostic testing and limited surveillance." The JEE adds that "Seychelles can conduct tests for priority diseases, and offers rapid testing for leptospirosis and Dengue fever, based on the country's epidemiological risks". However, the JEE does not describe the number or type of priority diseases tests that can be performed, saying only that "the SPHL provides food safety testing and confirmatory diagnostics for epidemic prone diseases and diseases of public health importance." [1] There is no mention of tests for specific diseases in the Seychelles' "Public Health Act, 2015". [3] There is no relevant information shared via the public websites of the Ministry of Health and Ministry of Fisheries and Agriculture. [4,5] The Seychelles Public Health Laboratory and Clinical Laboratory do not have an online presence. There is no evidence indicating which tests, if any, have been defined as country-specific tests. The Ministry of Health 's report, "Health of Our Nation: Health Sector Performance Report 2019", describes the existence of rapid HIV testing but otherwise does not include any relevant information. [6]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

- [2] World Health Organization (WHO). 2005. "Joint External Evaluation Tool - International Health Regulations (IHR) 2005." [https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1]. Accessed 4 January 2021.
- [3] Republic of Seychelles. "Public Health Act, 2015." October 2015. [http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf]. Accessed 4 January 2021.
- [4] Ministry of Health. [http://www.health.gov.sc/]. Accessed 4 January 2021.
- [5] Ministry of Fisheries and Agriculture. [http://mofa.gov.sc/]. Accessed 4 January 2021.
- [6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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 evidence that Seychelles 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. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, generally praises the testing capacities of Seychelles laboratories, including Seychelles Public Health Laboratory and the Clinical Laboratory. The JEE states that "Seychelles is able to provide a good range of microbiological tests at point of care (POC); provides in-country transportation for local diagnostics; and can dispatch specimens out of the country to identified reference laboratories if the required diagnostic tests are not provided locally". However, the JEE does not report the existence of a plan for testing during public health emergencies, let alone such a plan that includes considerations for novel pathogens. [1] The country's plans for specific diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. [1] The Seychelles National Integrated Emergency Management Plan of 2019 does not mention testing plans or contain relevant information. [2] The World Health Organization (WHO) International Health Regulations Strategic Partnership Portal does not list any relevant plans for Seychelles. [3] There is no relevant information shared via the public websites of the Ministry of Health, the Ministry of Agriculture, or the National Institute of Health and Social Studies. [4,5,6] The Seychelles Public Health Laboratory and Clinical Laboratory do not have an online presence. The Ministry of Health's report, "Health of Our Nation: Health Sector Performance Report 2019", describes the existence of rapid HIV testing but otherwise does not include any relevant information. [7] There is no evidence of relevant academic studies or media reports. In May 2020, the Ministry of Health issued a four-page document called "Testing Strategy for COVID-19". However, the document does not include considerations for scaling capacity, or describe roles or responsibilities. [8,9]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.
- [2] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf]. Accessed 28 December 2020.
- [3] World Health Organization (WHO). "Strategic Partnership for International Health Regulations (2005) and Health Security

(SPH)". [<https://extranet.who.int/sph/influenza-plan>]. Accessed 28 December 2020.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[6] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[7] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[8] Department of Health Seychelles. 13 May 2020. "Testing Strategy for COVID-19". [<http://www.health.gov.sc/wp-content/uploads/TESTING-STRATEGY-FOR-COVID-19.pdf>]. Accessed 28 December 2020.

[9] Ministry of Health. "COVID-19: Guidelines". [<http://www.health.gov.sc/index.php/covid-19/guidelines/>]. Accessed 28 December 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 insufficient evidence to show that Seychelles has a national laboratory that serves as a reference facility is accredited. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "national laboratories are assisting each other in achieving accreditation status through an informal, collaborative peer-to-peer audit and assessment process." [1] However, the JEE states that "there is no accredited laboratory in Seychelles, though the SPHL [Seychelles Public Health Laboratory] is certified on the ISO9001:2008 quality management system (QMS). Both the SPHL and the CL [Clinical Laboratory] are in the process of achieving accreditation through the WHO-endorsed Strengthening Laboratory Management Toward Accreditation (SLMTA) approach." [1] There is no relevant information shared via the public websites of the Ministry of Health, Ministry of Fisheries and Agriculture, or the National Institute of Health and Social Studies. [2,3,4] The Seychelles Public Health Laboratory (SPHL) and the Clinical Laboratory (CL) do not have public websites.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 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 insufficient evidence to show that Seychelles has a national laboratory that serves as a reference facility subject to external quality assurance review. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles "needs to establish a framework for national external quality assurance and proficiency testing for priority diseases". The JEE recommends that the country "request technical assistance to support the international accreditation of

the country's public health laboratories and external quality assessment systems." [1] There is no relevant information shared via the public websites of the Ministry of Health, Ministry of Fisheries and Agriculture, or the National Institute of Health and Social Studies. [2,3,4] The Seychelles Public Health Laboratory (SPHL) and the Clinical Laboratory (CL) do not have public websites.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 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: 0

There is no evidence of Seychelles having a nationwide specimen transport system. According to the Joint External Evaluation report (JEE) for the Seychelles, conducted in March 2018, "there is a need to improve intersectoral collaboration with the transport and tourism sectors, local administrations, and other relevant stakeholders, in order to increase understanding of specimen referral procedures and strengthen the specimen transport system". The JEE adds that "the standardization of national processes, procedures and infrastructure that is currently applied to international shipments should also be applied to intra-national shipments." [1] There is no relevant information shared via the public websites of the Ministry of Health; Ministry of Fisheries and Agriculture; Ministry of Foreign Affairs and Tourism; the National Institute of Health and Social Studies; or the Seychelles Land Transport Authority. [2,3,4,5,6] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has an online presence. The World Organization for Animal Health (OIE) PVS Evaluation report, published in 2011, does not describe the existence of a specimen transport system. [7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Foreign Affairs and Tourism. [<http://tourism.gov.sc/>]. Accessed 28 December 2020.

[5] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[6] Seychelles Land Transport Authority. [<http://www.slta.sc/>]. Accessed 28 December 2020.

[7] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles."

[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed 28 December 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 evidence that Seychelles 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. Relatedly, there is no evidence that Seychelles has a laboratory licensing system. The Joint External Evaluation report (JEE), published in 2018, notes the absence of "comprehensive national laboratory policy and quality standards". The JEE also notes that there is "political will to establish a regulatory framework for national licensing of laboratories", and that "the Ministry of Health is setting up a statutory framework for licensing medical laboratories and medical laboratory practice". [1] However, there is as yet no evidence that such a framework has been published. There is no relevant information shared via the public websites of the Ministry of Health, the Ministry of Fisheries and Agriculture, or the National Institute of Health and Social Sciences. [2,3,4] The Ministry of Health 's report, "Health of Our Nation: Health Sector Performance Report 2019", does not contain relevant information. The government of Seychelle's online repository of legislation does not show any new relevant legislation (such as the forthcoming framework mentioned by the JEE). [6] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has an online presence. Guidelines issued by the Ministry of Health in response to the COVID-19 pandemic do not contain any relevant policies. [7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[6] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 2020.

[7] Ministry of Health. "COVID-19: Guidelines". [<http://www.health.gov.sc/index.php/covid-19/guidelines/>]. Accessed 28 December 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 insufficient evidence to show that Seychelles is conducting ongoing event-based surveillance and analysis for infectious disease. Although there is evidence that Seychelles is conducting ongoing event-based surveillance, there is insufficient evidence that the surveillance is focused on infectious disease, nor that data are being analyzed on a daily basis. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "the Seychelles disease surveillance system employs the IDSR [Integrated Disease Surveillance and Response] strategy of the WHO Regional Office for Africa, though this has yet to be fully adapted to the national context. This system has different components: paper-based surveillance, web-based e-surveillance, sentinel surveillance and event-based (rumour) surveillance." [1] In addition, "the event-based surveillance has already detected incidents through capturing—for example—spills from the port and offensive smells emanating from buildings." [1] The JEE also states that "reporting is done by paper, fax, telephone and intranet. The web-based reporting system created as a pilot for the Indian Ocean Games in 2011 has since been expanded to cover 57 reporting sites country-wide, including government and private facilities." [1] Seychelles' "Public Health Act, 2015" indeed advocates for the Integrated Disease Surveillance and Response Manual; for example, it states that "A health care provider or a medical practitioner shall report to the Commissioner all cases of persons who are suffering from any disease or condition of public health importance specified in the Integrated Disease Surveillance and Response Manual." [2] The Ministry of Health has a Disease Surveillance and Response Unit (DSRU). According to the Ministry of Health's annual report, "Health of Our Nation: Health Sector Performance Report 2019", the DSRU reports notifiable diseases from all public clinical services, laboratories and some private clinics. In 2019, DSRU developed new Integrated Disease Surveillance and Response (IDSR) guidelines to help build the country's capacity to prevent, detect, and respond to public health emergencies". [2] However, the DSRU does not appear to have an online presence, and the abovementioned guidelines are not published online. There is no further evidence of event-based surveillance or data gathered from it shared via the public websites of the Ministry of Health; Ministry of Fisheries and Agriculture; or the National Institute for Health and Social Studies. [3,4,5] The Seychelles Public Health Laboratory (SPHL) and the Clinical Laboratory (CL) do not have an online presence. The Seychelles National Integrated Emergency Management Plan, a 2019 document, mentions epidemiological surveillance as being a disaster-response action, but otherwise does not show that there is ongoing event-based surveillance. [6] News reports about the COVID-19 pandemic suggest that DSRU is active in event-based surveillance; a representative described the monitoring of "social media for any rumours or unusual events in the community as part of the surveillance activities". However, it is not clear how frequent this surveillance is occurring. [7]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[6] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[7] Seychelles Nation. 4 May 2020. "Anita Bonne, Chantal Rath Talk about Their Work during the COVID-19 Pandemic". [<http://www.nation.sc/articles/4496/disease-surveillance-and-response-unit>]. Accessed 28 December 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 Seychelles has reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. The WHO Disease Outbreak News site reports no recent outbreaks of reportable diseases. [1] There is no relevant information shared via the public website of the Ministry of Health; the WHO Seychelles country profile; or the WHO Regional Office for Africa website. [2,3,4] Both the WHO and the Seychelles government confirm that the COVID-19 pandemic has reached Seychelles. [5,6] Seychelles did not record a case of COVID-19 until after it was already an acknowledged PHEIC. [7] Other than COVID-19, however, there are no media reports within the last two years of verified disease outbreaks that were PHEICs in the last two years, though Seychelles experienced a measles outbreak in January 2020. [8,9]

[1] World Health Organization (WHO). "Disease Outbreak News: Seychelles".

[<https://www.who.int/csr/don/archive/country/syc/en/>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.

[4] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 28 December 2020.

[5] World Health Organization (WHO). "WHO Coronavirus Disease (COVID-19) Dashboard".

[https://covid19.who.int/?gclid=CjwKCAjw0On8BRAGeIwAincsHDsiu3F_evEv5sAS03F77Qlpy_CkBTUzGKG8PN0UCpleR_MqmUXPghoCVpsQAvD_BwE]. Accessed 28 December 2020.

[6] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 28 December 2020.

[7] Bonnelame, Betymie. 14 March 2020. "2 Seychellois test positive for COVID-19 as globe-sweeping virus reaches island nation". Seychelles News Agency. [seychellesnewsagency.com/articles/12593/+Seychellois+test+positive+for+COVID-+as+globe-sweeping+virus+reaches+island+nation]. Accessed 20 April 2021.

[8] World Health Organization. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH): Seychelles". [<https://extranet.who.int/sph/country/seychelles>]. Accessed 4 January 2021.

[9] Flutrackers.com. 4 February 2020. "Seychelles Measles Outbreak - 2020".

[<https://flutrackers.com/forum/forum/emerging-diseases-other-health-threats-alphabetical-a-thru-h/childhood-diseases/measles/827432-seychelles-measles-outbreak-2020>]. Accessed 4 January 2021.

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 insufficient evidence to show that Seychelles operates an electronic reporting surveillance system at both the national and sub-national level. Although there is evidence that Seychelles has begun to develop such a system, there is insufficient evidence to show that it is functional. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles has a web-based e-surveillance system as well as "all facilities are connected to an intranet

system." [1] However, the JEE recommends that Seychelles develop an "interoperable, interconnected, electronic real-time reporting system, including both the public health and veterinary surveillance systems, which is capable of sharing data with all relevant stakeholders." [1] The JEE mentions that "the Seychelles disease surveillance system employs the IDSR [Integrated Disease Surveillance and Response] strategy of the WHO Regional Office for Africa, though this has yet to be fully adapted to the national context." Although the JEE does not specify what needs to be done to make the system "fully adapted to the national context", it also mentions that "further investment is required to make implementation of the e-surveillance system fully functional." [1] There is no additional evidence of an electronic reporting surveillance system at both the national and sub-national level either on their Ministry of Health or Ministry of Fisheries and Agriculture websites. [2,3] The "Public Health Act, 2015" does not contain relevant provisions. [4] The Ministry of Health has a Disease Surveillance and Response Unit (DSRU). According to the Ministry of Health's annual report, "Health of Our Nation: Health Sector Performance Report 2019", the DSRU reports notifiable diseases from all public clinical services, laboratories and some private clinics. In 2019, DSRU developed new Integrated Disease Surveillance and Response (IDSR) guidelines to help build the country's capacity to prevent, detect, and respond to public health emergencies". [5] However, the DSRU does not appear to have an online presence, and the abovementioned guidelines are not published online.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[4] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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 not enough evidence to confirm that Seychelles' electronic reporting system collects ongoing or real-time laboratory data. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles has a web-based e-surveillance system as well as "all facilities are connected to an intranet system." [1] However, the JEE recommends that Seychelles should develop an interoperable, interconnected, electronic real-time reporting system, including both the public health and veterinary surveillance systems, which is capable of sharing data with all relevant stakeholders." [1] The JEE mentions that "the Seychelles disease surveillance system employs the IDSR [Integrated Disease Surveillance and Response] strategy of the WHO Regional Office for Africa, though this has yet to be fully adapted to the national context." [1] In August 2019, the World Health Organization (WHO) reported that Seychelles had adopted and validated the "3rd Edition Integrated Diseases Surveillance and Response (IDSR) Technical Guidelines". However, the WHO description does not make it clear whether this means the that the guidelines have been "fully adapted", or whether ongoing or-real-time electronic reporting is now taking place. [2] There is no relevant information shared via the public websites of the Ministry of Health or Ministry of Fisheries and Agriculture. [3,4] There are no relevant provisions in the "Public Health Act, 2015." [5]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December

2020.

[2] World Health Organization (WHO). 30 August 2019. "Seychelles takes the lead as the first country in the African Region to adapt and validate the WHO/AFRO's 3rd Edition Integrated Diseases Surveillance and Response (IDSR) Technical Guidelines". [<https://www.afro.who.int/news/seychelles-takes-lead-first-country-african-region-adapt-and-validate-whoafros-3rd-edition>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 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: 0

There is no evidence that Seychelles uses electronic health records commonly. The Ministry of Health's annual report, "Health of Our Nation: Health Sector Performance Report 2019" (released in 2020), states that "transitioning to an electronic health information system (eHIS) has been on the agenda of the [Ministry of Health] for over a decade. In 2019, a contract was signed between the HCA [Health Care Agency] and Manomara Software Company for the introduction of an eHIS and work is planned to start soon. Several sessions to sensitize health workers on the introduction and expectations of a new HIS system were organized by the HCA". [1] There is no evidence that this process has yet been completed. The Seychelles National Health Strategic Plan 2016-2020 states that "mechanisms for collecting and analysing health information are still primarily paper-based, there is a need to introduce to an electronic health information system as a matter of urgency". In a table of indicators listing baseline and target data for 2020, the field is blank for "percentage of facilities reporting using electronic health records system". [2] There is no relevant information shared via the public websites of the Ministry of Health or the National Institute of Health and Social Studies. [3,4] Seychelles' largest hospital, Seychelles Hospital Victoria, does not have its own website, though it does have a Facebook page (which does not share relevant information). [5] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has an online presence. Seychelles' WHO e-health profile from 2015 states that the country does not have a national electronic health records system, and that primary, tertiary and secondary healthcare facilities do not use such records. [6]

[1] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[5] Facebook. "Seychelles Hospital Victoria." [<https://www.facebook.com/pages/Seychelles-Hospital-Victoria/209804949096165>]. Accessed 28 December 2020.

[6] World Health Organization. "Atlas of eHealth country profiles The use of eHealth in support of universal health coverage."

August 2015. [https://apps.who.int/iris/bitstream/handle/10665/204523/9789241565219_eng.pdf?sequence=1]. Accessed 28 December 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 evidence that the national public health system have access to electronic health records of individuals in Seychelles, nor that electronic health records are commonly in use. The Ministry of Health's annual report, "Health of Our Nation: Health Sector Performance Report 2019" (released in 2020), states that "transitioning to an electronic health information system (eHIS) has been on the agenda of the [Ministry of Health] for over a decade. In 2019, a contract was signed between the HCA [Health Care Agency] and Manomara Software Company for the introduction of an eHIS and work is planned to start soon. Several sessions to sensitize health workers on the introduction and expectations of a new HIS system were organized by the HCA". [1] There is no evidence that this process has yet been completed. The Seychelles National Health Strategic Plan 2016-2020 states that "mechanisms for collecting and analysing health information are still primarily paper-based, there is a need to introduce to an electronic health information system as a matter of urgency". In a table of indicators listing baseline and target data for 2020, the field is blank for "percentage of facilities reporting using electronic health records system". [2] There is no relevant information shared via the public websites of the Ministry of Health or the National Institute of Health and Social Studies. [3,4] Seychelles' largest hospital, Seychelles Hospital Victoria, does not have its own website, though it does have a Facebook page (which does not share relevant information). [3] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has an online presence. Seychelles' WHO e-health profile from 2015 states that the country does not have a national electronic health records system, and that primary, tertiary and secondary healthcare facilities do not use such records. [5]

[1] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[4] Facebook. "Seychelles Hospital Victoria." [<https://www.facebook.com/pages/Seychelles-Hospital-Victoria/209804949096165>]. Accessed 28 December 2020.

[5] World Health Organization. "Atlas of eHealth country profiles The use of eHealth in support of universal health coverage." August 2015. [https://apps.who.int/iris/bitstream/handle/10665/204523/9789241565219_eng.pdf?sequence=1]. Accessed 28 December 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 evidence that there are data standards in Seychelles to ensure that health records data are comparable, nor that such records are commonly in use. The Ministry of Health's annual report, "Health of Our Nation: Health Sector Performance

Report 2019" (released in 2020), states that "transitioning to an electronic health information system (eHIS) has been on the agenda of the [Ministry of Health] for over a decade. In 2019, a contract was signed between the HCA [Health Care Agency] and Manomara Software Company for the introduction of an eHIS and work is planned to start soon. Several sessions to sensitize health workers on the introduction and expectations of a new HIS system were organized by the HCA". [1] There is no evidence that this process has yet been completed. The Seychelles National Health Strategic Plan 2016-2020 states that "mechanisms for collecting and analysing health information are still primarily paper-based, there is a need to introduce to an electronic health information system as a matter of urgency". In a table of indicators listing baseline and target data for 2020, the field is blank for "percentage of facilities reporting using electronic health records system". [2] There is no relevant information shared via the public websites of the Ministry of Health or the National Institute of Health and Social Studies. [3,4] Seychelles' largest hospital, Seychelles Hospital Victoria, does not have its own website, though it does have a Facebook page (which does not share relevant information). [3] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has an online presence. Seychelles' WHO e-health profile from 2015 states that the country does not have a national electronic health records system, and that primary, tertiary and secondary healthcare facilities do not use such records. [5] The government of Seychelle's online repository of legislation does not show any relevant legislation. [6]

[1] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 2020.

[4] Facebook. "Seychelles Hospital Victoria." [<https://www.facebook.com/pages/Seychelles-Hospital-Victoria/209804949096165>]. Accessed 28 December 2020.

[5] World Health Organization. "Atlas of eHealth country profiles The use of eHealth in support of universal health coverage." August 2015. [https://apps.who.int/iris/bitstream/handle/10665/204523/9789241565219_eng.pdf?sequence=1]. Accessed 28 December 2020.

[6] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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 evidence to show that Seychelles has established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "a dedicated server connects health authorities with the Ministry of Land Use and Habitat" and "laboratory services are directly linked to the surveillance system." [1] However, no indication is given as to whether there is a mechanism which assists in the sharing of surveillance data. There is no evidence of surveillance data sharing in the "Public Health Act, 2015". [2] There is no relevant information shared via the public websites of Ministry of Health; Ministry of

Fisheries and Agriculture; Ministry of Environment, Energy and Climate Change. [3,4,5] Neither the World Animal Health Organisation (OIE) PVS Evaluation Report; Ministry of Health's 2019 annual report; or the Seychelles National Health Strategic Plan 2016-2020 contains relevant information. [6,7,8] The Seychelles Public Health Laboratory or Clinical Laboratory do not have an online presence.

[1] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed by March 4, 2019.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 28 December 2020.

[4] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 28 December 2020.

[5] Ministry of Environment, Energy and Climate Change. [<http://www.meec.gov.sc/>]. Accessed 28 December 2020.

[6] World Organization for Animal Health (OIE). November 2011. PVS Evaluation Report. "Seychelles." [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-InterimReport-Seychelles.pdf]. Accessed by April 11, 2019.

[7] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[8] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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 evidence that Seychelles makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites, aside from data about the COVID-19 pandemic. The Ministry of Health regularly releases data on the COVID-19 pandemic through a dedicated webpage, and through the ministry's main website. [1,2] Aside from these updates, neither the Ministry of Health nor other government bodies, such as the National Institute of Health and Social Sciences, releases relevant data. [2,3] In the past, the Ministry of Health has issued a "Monthly Health Statistical Bulletins", but these did not have data on disease outbreaks; rather, they report the number of births, deaths, admissions, and discharges from hospitals in a given month. In any case, they have not been released since 2017. [4,5] The 2018 Joint External Evaluation report (JEE) for Seychelles does no mention any relevant data reporting. [6]

[1] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 4 January 2021.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Health. December 2017. "Monthly Health Statistical Report 2017." [<http://www.health.gov.sc/wp-content/uploads/health-statistical-report-december-2017.pdf>]. Accessed 4 January 2021.

[5] Ministry of Health. "Statistics". [<http://www.health.gov.sc/index.php/statistics/>]. Accessed 4 January 2021.

[6] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018.

[<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 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

Seychelles makes de-identified COVID-19 surveillance data available via daily reports (or other formats) on government websites. Namely, the Ministry of Health reports such data on its primary website and on a special webpage dedicated to COVID-19 statistics. [1,2] The special webpage, "COVID-19 in Seychelles", report such data as the total number of active cases, confirmed cases, deaths, individuals in quarantine, and suspected cases. Date stamps next to the data on this site indicate that it is updated daily. [1] The webpage does not describe the number of new cases identified daily. New cases are reported through press releases issued by the Ministry of Health, which are published less frequently. At the time of research, the most recent release was two days old, and it appeared that the government had been making such releases only sporadically. [3,4]

[1] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 4 January 2021.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Ministry of Health. 2 January 2021. "10 New COVID-19 Cases Recorded".

[<http://www.health.gov.sc/index.php/2021/01/02/10-new-covid-19-cases-recorded>]. Accessed 4 January 2021.

[4] Ministry of Health. "Press Update". [<http://www.health.gov.sc/index.php/covid-19/press-update/>]. Accessed 4 January 2021.

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: 0

There is no evidence of Seychelles having laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. Evidence does not suggest that Seychelles currently makes health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites, aside from data related to the COVID-19 pandemic. [1,2] In any case, there is no evidence of laws that safeguard the confidentiality of identifiable health information on the publicly available websites of the Ministry of Health or the National Institute of Health and Social Studies. [2,3] Although the country does have a Data Protection Act, the International Telecommunications Union (ITU) describes it as a "partial document". [4] Text of the law shared on a government website does not contain any relevant provisions, and contains a note saying the law "has not been brought into operation" as of the end of 2010. [5] An online repository of the laws of Seychelles compiled by AfricanLII, a program at the University of Cape Town, describes the law as "not yet in force". [6] No such laws or guidelines are outlined in the Joint External Evaluation report (JEE) for Seychelles, published in 2018. [7] The government of Seychelle's online repository of

legislation does not list any relevant laws. [8]

[1] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 4 January 2021.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[4] International Telecommunications Union. "Cyberwellness Profile Republic of Seychelles." March 2015.

[https://www.itu.int/en/ITU-D/Cybersecurity/Documents/Country_Profiles/Seychelles.pdf]. Accessed 28 December 2020.

[5] Government of Seychelles. 2003. "Data Protection Act".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 2020.

[6] Laws of Seychelles. "Data Protection Act." 2003. [https://greybook.seylii.org/w/se/2003-9#!fragment/zoupio-_Toc385830841/BQCwhgziBcwMYgk4DsDWszlQewE4BUBTADwBdoAvbRABwEtsBaAfX2zgGYAOAVi44AMXACwBGAJQAaZNIK EIARUSFCAT2gByDZlhx2ADYGAWkjTQAhMh2EwuBEpXqtNuwgDKeUgCF1AJQBRABkAgDUAQQA5YwDJUjAAI2hSdnFxA]. Accessed 28 December 2020.

[7] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018.

[<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[8] Office of the Attorney General. "Laws of Seychelles".

[<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 2020.

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: 0

There is no evidence of Seychelles having laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, let alone such laws that mention protection from cyber attacks. Evidence does not suggest that Seychelles currently makes health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites, aside from data related to the COVID-19 pandemic. [1,2] In any case, there is no evidence of laws that safeguard the confidentiality of identifiable health information on the publicly available websites of the Ministry of Health or the National Institute of Health and Social Studies. [2,3] Although the country does have a Data Protection Act, the International Telecommunications Union (ITU) describes it as a "partial document". [4] Text of the law shared on a government website does not contain any relevant provisions, and contains a note saying the law "has not been brought into operation" as of the end of 2010. [5] An online repository of the laws of Seychelles compiled by AfricanLII, a program at the University of Cape Town, describes the law as "not yet in force". [6] No such laws or guidelines are outlined in the Joint External Evaluation report (JEE) for Seychelles, published in 2018. [7] The government of Seychelle's online repository of legislation does not list any relevant laws. [8]

[1] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 4 January 2021.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

- [4] International Telecommunications Union. "Cyberwellness Profile Republic of Seychelles." March 2015. [https://www.itu.int/en/ITU-D/Cybersecurity/Documents/Country_Profiles/Seychelles.pdf]. Accessed 28 December 2020.
- [5] Government of Seychelles. 2003. "Data Protection Act". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 2020.
- [6] Laws of Seychelles. "Data Protection Act." 2003. [https://greybook.seyilii.org/w/se/2003-9#lfragment/zoupio-_Toc385830841/BQCwhgziBcwMYgK4DsDWszIQewE4BUBTADwBdoAvbRABwEtsBaAfX2zgGYAOAVi44AMXACwBGAJQAaZNIK EIARUSFcAt2gByDZlhx2ADYGAwkjTQAhhMh2EwuBEpXqtNuwgDKeUgCF1AJQBRABkAgDUAQQA5YwDJUjAAI2hSdnFxiA]. Accessed 28 December 2020.
- [7] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [8] Office of the Attorney General. "Laws of Seychelles". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 28 December 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, Yes, commitments have been made to share data only for one disease = 1, No = 0

Current Year Score: 0

There is no evidence of Seychelles having made a commitment via public statements, legislation, or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region, whether for one disease or for multiple diseases. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, does not include any relevant information. [1] There is no relevant information shared via the public websites of Ministry of Health or the National Institute of Health and Social Sciences. [2,3] Neither the Department of Risk and Disaster Management, the Seychelles Public Health Laboratory nor the Clinical Laboratory have public websites. Neither the Seychelles National Integrated Emergency Management Plan of 2019; the Ministry of Health's 2019 annual report; nor the Seychelles National Health Strategic Plan 2016-2020 contains relevant information. [4,5,6] Through its membership in the Indian Ocean Commission's SEGA (Epidemic Surveillance and Alert Management) network, the government of Seychelles presumably shares health surveillance data (since surveillance assistance is a function of SEGA). [7,8,9] However, SEGA does not share via a public website information on surveillance during emergencies. There is no mention in news media of such surveillance data sharing.

- [1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.
- [4] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.
- [5] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[7] Epiconcept. "Sega One Health Network". [<https://www.epiconcept.fr/en/produit/sega-one-health-network/>]. Accessed 4 January 2021.

[8] Epiconcept. "Epiconcept Indian Ocean". [<https://www.epiconcept.io/en/homepage/epiconcept-indian-ocean/>]. Accessed 4 January 2021.

[9] Agence Francaise de Development. 1 March 2019. "Indian Ocean: Exemplary Regional Cooperation to Mitigate the Risk of an Epidemic". [<https://www.afd.fr/en/actualites/indian-ocean-exemplary-regional-cooperation-mitigate-risk-epidemic>]. Accessed 4 January 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 no evidence that Seychelles has 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, whether for future or ongoing emergencies. There is no relevant information shared via the public websites of the Ministry of Health or the National Institute of Health and Social Studies. [1,2] Neither the Department of Risk and Disaster Management, the Seychelles Public Health Laboratory nor the Clinical Laboratory have public websites. Neither the Seychelles National Integrated Emergency Management Plan of 2019 nor public health planning documents, such as the Ministry of Health's 2019 annual report; nor the Seychelles National Health Strategic Plan 2016-2020 mention contact tracing. [3,4,5] Regulations issued in response to the COVID-19 pandemic, note the importance of surveillance of contacts of infected individuals. [6,7] Press releases all mention the existence of contact tracing efforts. in response to the pandemic. [8] However, these descriptions fall short of showing support at the sub-national level to contact tracing.

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[4] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[6] Ministry of Health. "Guidelines". [<http://www.health.gov.sc/index.php/covid-19/guidelines/>]. Accessed 4 January 2021.

[7] Department of Health Seychelles. 10 August 2020. "COVID-19 Guidance for Passive Surveillance". [<http://www.health.gov.sc/wp-content/uploads/COVID-19-GUIDANCE-FOR-PASSIVE-SURVEILLANCE.pdf>]. Accessed 4 January 2021

[8] Ministry of Health. 4 January 2021. "New measures effected as COVID-19 cases rise". [<http://www.health.gov.sc/index.php/2021/01/04/new-measures-effected-as-covid-19-cases-rise/>]. Accessed 4 January 2021.

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 insufficient evidence to show that Seychelles provides wraparound services to enable cases and suspected cases to self-isolate as recommended, whether economic support (paycheck, job security) or medical attention. There have been economic support measures issued to support those in quarantine because of the COVID-19 pandemic, but they as yet apply only to that pandemic and not to self-isolation more generally. There is no relevant information shared via the public websites of the Ministry of Health or the National Institute of Health and Social Studies. [1,2] Neither the Department of Risk and Disaster Management, the Seychelles Public Health Laboratory nor the Clinical Laboratory have public websites. Neither the Seychelles National Integrated Emergency Management Plan of 2019 nor public health planning documents, such as the Ministry of Health's 2019 annual report; nor the Seychelles National Health Strategic Plan 2016-2020 contains relevant information. [3,4,5] The Quarantine Act of 1948 does not contain relevant passages. [6] The government's response to the COVID-19 pandemic has included protections for workers in quarantine. The Employment (Coronavirus Special Leave) (Temporary Measures) Regulations, 2020 stipulate that "workers who are in quarantine or isolation or are separated or segregated as a precautionary measure to stop the spread of the virus, need not apply for the special leave, provided they are issued with a certificate from the relevant health authority". [7] However, these benefits appear to be limited to the COVID-19 pandemic. A 2020 amendment to the Employment Act gives generalized protections to workers from certain types of wage reductions and terminations, but does not relate to quarantining specifically, and in case is also limited in application to the COVID-19 pandemic. [8]

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[4] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[6] Government of Seychelles. 1 November 1948. "Quarantine Act". [<http://www.attorneygeneraloffice.gov.sc/index.php/resources/print-publications/laws-of-seychelles>]. Accessed 4 January 2021.

[7] Ministry of Employment and Social Affairs. "New law introducing special leave now in force". [<http://www.employment.gov.sc/media-centre/publications/339-new-law-introducing-special-leave-now-in-force>]. Accessed

4 January 2021.

[8] Government of Seychelles. 1 June 2020. "Employment (Amendment) Act, 2020". [<https://seylli.org/sc/Act%2020%20-%20Employment%20%28Amendment%29%20Act%202020.pdf>]. Accessed 4 January 2021.

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 insufficient evidence to show that Seychelles 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. The Ministry of Health reports local COVID-19 data on its primary website and on a special webpage dedicated to COVID-19 statistics. [1,2] The special webpage, "COVID-19 in Seychelles", reports such data as the total number of active cases, confirmed cases, deaths, individuals in quarantine, and suspected cases. Date stamps next to the data on this site indicate that it is updated daily. [1] However, these reports do not make reference to contacts, contact tracing, or the source of infection. New COVID-19 cases are also reported through press releases issued by the Ministry of Health, which are published less frequently. At the time of research, the most recent release was two days old, and it appeared that the government had been making such releases only sporadically. In any case, they do not consistently report the source of infection of new cases. [3,4]

[1] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 4 January 2021.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Ministry of Health. 2 January 2021. "10 New COVID-19 Cases Recorded".

[<http://www.health.gov.sc/index.php/2021/01/02/10-new-covid-19-cases-recorded>]. Accessed 4 January 2021.

[4] Ministry of Health. "Press Update". [<http://www.health.gov.sc/index.php/covid-19/press-update/>]. Accessed 4 January 2021.

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 evidence that Seychelles 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 public health emergency, whether to prepare for a future emergency or respond to an active one. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, describes the "legal instruments governing public health implementation" as the "Public Health Act [2015], a Public Health Authority Act [2013] and a Quarantine Act [1948]" as the

legal instruments governing public health implementation. [1] None of these laws contain relevant provisions. [2,3,4] Similarly, regulations issued under the Public Health Act in response to the COVID-19 pandemic in 2020 do not contain relevant provisions. [5] The Quarantine Act does empower authorities to generate rules according to broad principles in the case of an emergency. For example, the law allows the Minister to "make regulations ... for preventing ... danger to public health from ship or aircraft or persons or things therein arriving at any place; and ... the spread of infection by means of any ships or any aircraft about to leave any place, or by means of any person or thing about to leave any place in any ship or aircraft." It also allows "the detention of ships or aircraft and of persons and things that are or have been on board any ship or aircraft". [4] However, these provisions do not amount to an agreement between the public health system and border control authorities. There is no relevant information shared via the public websites of the Ministry of Health, the Immigration and Civil Status Seychelles, or the National Institute of Health and Social Studies. [6,7,8] The Seychelles Public Health Laboratory and Clinical Laboratory do not have an online presence.

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. October 2015. "Public Health Act, 2015." [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 2020.

[3] Republic of Seychelles. October 2013. "Public Health Authority Act, 2013". [<https://seylil.org/sc/Act%207%20of%202013%20Public%20Health%20Authority%20Act%20%5Bgazetted%2028th%20October%202013%5D.pdf>]. Accessed 28 December 2020.

[4] Republic of Seychelles. Consolidated to June 2012. "Quarantine Act, 1948". [<https://seylil.org/sc/legislation/consolidated-act/197>]. Accessed 4 January 2021.

[5] Ministry of Foreign Affairs and Tourism. 7 May 2020. "Covid-19 (Coronavirus Disease) Public Health (Infectious Disease) Regulations Orders". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2052]. Accessed 4 January 2021.

[6] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[7] Immigration and Civil Status Seychelles. [<http://www.ics.gov.sc/>]. Accessed 4 January 2021.

[8] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 28 December 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

There is evidence that resources are provided by Seychelles to send citizens to another country to participate in applied epidemiology training programs; however, no applied epidemiology training program is available in country. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "although there is no FETP or applied epidemiology

training programme established within Seychelles, staff participate in overseas programmes through an existing agreement. Seychelles has two epidemiologists (one in full time employment) trained by the field epidemiology programme organised by the Indian Ocean Commission. Two field epidemiologists are currently undergoing this two-year competency based training; no veterinary staff have received it yet." [1] The JEE recommends Seychelles to "establish a basic Field Epidemiology Training Programme at the National Institute for Health and Social Services for frontline human, animal and environmental public health staff." [1] There is also evidence that Seychelles participates in the "Indian Ocean Field Epidemiology Training Program." [2] However, no evidence exists either on their National Institute of Health and Social Studies or Ministry of Health website for in-country applied epidemiology training programs. [3,4]

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] TEPHINET. "Indian Ocean Field Epidemiology Training Program." [<https://www.tephinet.org/training-programs/indian-ocean-field-epidemiology-training-program>]. Accessed by 4 January 2021.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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

There is evidence that available field epidemiology training programs are explicitly inclusive of animal health professionals. The "Indian Ocean Field Epidemiology Training Program" which Seychelles participates is available to animal health professionals. According to the program overview, "as of 2015, the program also includes emphasis on the animal health sector." [1] However, although the program is inclusive of animal health professionals, there is no evidence that Seychelles animal health professionals have yet participated in it. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "although there is no FETP or applied epidemiology training programme established within Seychelles, staff participate in overseas programmes through an existing agreement. Seychelles has two epidemiologists (one in full time employment) trained by the field epidemiology programme organised by the Indian Ocean Commission. Two field epidemiologists are currently undergoing this two-year competency based training; no veterinary staff have received it yet." [1] The JEE recommends that Seychelles "establish a basic Field Epidemiology Training Programme at the National Institute for Health and Social Services for frontline human, animal and environmental public health staff." [1] A 2017 article in the Pan_African Medical Journal notes that the Indian Ocean FETP includes 2 veterinary clinicians, though it does not name their country of origin. [3] The website of AFENET, the African field epidemiological training program network, does not list any programs for Seychelles. [4]

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] TEPHINET. "Indian Ocean Field Epidemiology Training Program." [<https://www.tephinet.org/training-programs/indian-ocean-field-epidemiology-training-program>]. Accessed by 4 January 2021.

[3] Alm, Ariane, et al. 4 April 2017. "Four years into the Indian ocean field epidemiology training programme". Pan African Medical Journal. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5483346/>]. Accessed 24 January 2021.

[4] AFENET. [<http://afenet.net/>]. Accessed 4 January 2021.

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: 1

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 evidence that Seychelles has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. According to the Joint External Evaluation report (JEE) for Seychelles, published in March 2018, "The Disaster Risk Management Act 2014 provides the foundation for emergency preparedness and coordination" and "all government departments are required to have an emergency response plan in place." [1] "The Department of Risk and Disaster Management (DRDM) is responsible for coordinating all sectors during an emergency. Each sector's roles are clearly stated. In a public health emergency, should the Ministry of Health be overwhelmed, it can request the activation of the DRDM for coordination, and to bring in other sectors' resources to assist." [1] However, the "Disaster Risk Management Act, 2014" does not address planning for multiple communicable diseases with pandemic potential; rather, it is a broad legislation that mandates each Ministry and department (such as the Ministry of Environment and the Ministry of Health) to develop its own plans to tackle emergencies. [2] The country's plans for specific diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website.

The Seychelles National Integrated Emergency Management Plan, published in 2019, mentions pandemics and epidemics as potential risks but does not contain detailed plans for addressing them. [3] There is no relevant information shared via the public website of the Ministry of Health. [4] There is no relevant information shared via public health planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020. [5,6] Neither the Department of Risk and Disaster Management, the Seychelles Public Health Laboratory nor the Clinical Laboratory have public websites.

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Disaster Risk Management Act, 2014." August 2014. [https://seylil.org/sc/sc/legislation/Act%2015%20of%202014%20Disaster%20Risk%20Management%20Act%2C%202014_0.pdf]. Accessed 28 December 2020.

[3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[5] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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 evidence that Seychelles has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, let alone such a plan that has been updated in the last three years. According to the Joint External Evaluation report (JEE) for Seychelles, published in March 2018, "The Disaster Risk Management Act 2014 provides the foundation for emergency preparedness and coordination" and "all government departments are required to have an emergency response plan in place." [1] "The Department of Risk and Disaster Management (DRDM) is responsible for coordinating all sectors during an emergency. Each sector's roles are clearly stated. In a public health emergency, should the Ministry of Health be overwhelmed, it can request the activation of the DRDM for coordination, and to bring in other sectors' resources to assist." [1] However, the "Disaster Risk Management Act, 2014" does not address planning for multiple communicable diseases with pandemic potential; rather, it is a broad legislation that mandates each Ministry and department (such as the Ministry of Environment and the Ministry of Health) to develop its own plans to tackle emergencies. [2] The country's plans for specific diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. The Seychelles National Integrated Emergency Management Plan, published in 2019, mentions pandemics and epidemics as potential risks but does not contain detailed plans for addressing them. [3] There is no relevant information shared via the public website of the Ministry of Health. [4] There is no relevant information shared via public health planning documents, such as the Ministry of Health's

2019 annual report and the Seychelles National Health Strategic Plan 2016-2020. [5,6] Neither the Department of Risk and Disaster Management, the Seychelles Public Health Laboratory nor the Clinical Laboratory have public websites.

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Disaster Risk Management Act, 2014." August 2014. [https://seyl.ii.org/sc/sc/legislation/Act%2015%20of%202014%20Disaster%20Risk%20Management%20Act%2C%202014_0.pdf]. Accessed 28 December 2020.

[3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[5] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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 evidence that Seychelles has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, let alone such a plan that includes considerations for pediatric or other vulnerable populations. According to the Joint External Evaluation report (JEE) for Seychelles, published in March 2018, "The Disaster Risk Management Act 2014 provides the foundation for emergency preparedness and coordination" and "all government departments are required to have an emergency response plan in place." [1] "The Department of Risk and Disaster Management (DRDM) is responsible for coordinating all sectors during an emergency. Each sector's roles are clearly stated. In a public health emergency, should the Ministry of Health be overwhelmed, it can request the activation of the DRDM for coordination, and to bring in other sectors' resources to assist." [1] However, the "Disaster Risk Management Act, 2014" does not address planning for multiple communicable diseases with pandemic potential; rather, it is a broad legislation that mandates each Ministry and department (such as the Ministry of Environment and the Ministry of Health) to develop its own plans to tackle emergencies. [2] The country's plans for specific diseases mentioned in the JEE, including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. The Seychelles National Integrated Emergency Management Plan, published in 2019, mentions pandemics and epidemics as potential risks but does not contain detailed plans for addressing them. It also lists as a priority the protection of vulnerable groups (including children), but not in specific relation to responding to pandemic threats. [3] There is no relevant information shared via the public website of the Ministry of Health. [4] There is no relevant information shared via public health planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020. [5,6] Neither the Department of Risk and Disaster Management, the Seychelles Public Health Laboratory nor

the Clinical Laboratory have public websites.

- [1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Republic of Seychelles. "Disaster Risk Management Act, 2014." August 2014. [https://seylil.org/sc/sc/legislation/Act%2015%20of%202014%20Disaster%20Risk%20Management%20Act%2C%202014_0.pdf]. Accessed 28 December 2020.
- [3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.
- [4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [5] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.
- [6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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: 1

There is some evidence that Seychelles has a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. In 2019, Seychelles Department of Risk and Disaster Management published the Seychelles National Integrated Emergency Management Plan (NIEMP), which is an overarching plan for responding to emergencies. This plan does include mechanisms for involving the private sector in emergency response. It defines the Department of Risk and Disaster Management as the coordinating body for the private sector, and also defines a specific stand-alone task for disaster response of "Subnational Coordination and Coordination with the Private Sector". This task assigns to the Department of Risk and Disaster Management the following responsibilities: "Ensure effective coordination and integration at subnational levels and with the private sector in order to meet the needs of the EOC/command post and provide a timely response to the emergency. Seek support from the entities responsible for critical infrastructure, key

resources, other businesses and industries, and nongovernmental entities involved in response and recovery". The NIEMP also mentions the importance of coordination with the private sector in the completion of several other disaster management actions, for example in the coordination of international cooperation. [1] Relatedly, the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "states that "the Disaster Risk Management Act 2014 provides the foundation for emergency preparedness and coordination" and "all government departments are required to have an emergency response plan in place." [1] "The Department of Risk and Disaster Management (DRDM) is responsible for coordinating all sectors during an emergency. Each sector's roles are clearly stated. In a public health emergency, should the Ministry of Health be overwhelmed, it can request the activation of the DRDM for coordination, and to bring in other sectors' resources to assist." [2] The "Disaster Risk Management Act, 2014" is a broad legislation that mandates each Ministry and department (such as the Ministry of Environment and the Ministry of Health) to develop its own plans to tackle emergencies. [3]

[1] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[2] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[3] Republic of Seychelles. "Disaster Risk Management Act, 2014." August 2014. [https://seylia.org/sc/sc/legislation/Act%2015%20of%202014%20Disaster%20Risk%20Management%20Act%2C%202014_0.pdf]. Accessed 28 December 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 evidence that Seychelles has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic, but only for a single disease, COVID-19. In response to the COVID-19 pandemic in 2020, the government issued legal declarations imposing NPIs, such as mandatory wearing of face masks, prohibitions of assemblies, and restrictions on business opening hours and other activities. [1] However, these interventions were limited to the COVID-19 pandemic and did not establish a generalized plan for NPIs during epidemics or pandemics. Other than this, Seychelles does not have a publicly available plan or strategy for responding to epidemics or pandemics. The country's plans for specific diseases mentioned in the Joint External Evaluation report (JEE, published in 2018), including "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. Similarly, though the JEE says that the Seychelles has a plan for avian influenza, there is no evidence of such a plan being shared via a public website. [2] Thus, it is not possible to check whether this plans include provisions for NPIs. There is no other relevant information shared in the JEE. [2] The Seychelles National Integrated Emergency Management Plan (NIEMP), published in 2019, mentions pandemics and epidemics as potential risks but does not contain detailed plans for addressing them. The NIEMP does not mention NPIs in any context. [3] There is no relevant information shared via public health planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020. [4,5] There is no other relevant information shared via

the public website of the Ministry of Health. [6] The Department of Risk and Disaster Management does not have a public website.

[1] Ministry of Health. "COVID-19: Legal Documents". [<http://www.health.gov.sc/index.php/covid-19/legal-documents/>]. Accessed 4 January 2021.

[2] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[4] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[6] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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: 1

There is evidence that, in the past year, Seychelles has activated an emergency response plan for an infectious disease outbreak, but no evidence that the country has completed a national-level biological threat-focused exercise. Seychelles declared a Public Health Emergency on 20 March 2020 in response to the COVID-19 pandemic. [1,2,3,4] At the time that the declaration was made, Seychelles had not yet adopted its 2019 National Integrated Emergency Management Plan (NIEMP), which was approved by the cabinet in August 2020. [5] However, because a Public Health Emergency had already been declared in March 2020, the approval of the NIEMP also appears to have constituted its immediate activation, and thus the activation of the country's emergency response plan. Subsequent government releases show that the Public Health Emergency Operations Centre (PHEOC) has been active in response to the declaration. [6] More specifically, media reports have described the NIEMP as the framework that the Ministry of Health and the Department of Risk and Disaster Management (DRDM) have used to enact their responsibilities according to the declaration of a Public Health Emergency. [7] Neither the Department of Risk and Disaster Management nor the PHEOC has a public website. There is no additional relevant information shared via the public website of the Ministry of Health, the World Health Organization (WHO) list of all biological exercises; the WHO Seychelles country profile; or the WHO Regional Office for Africa website; or the WHO International Health Regulations Strategic Partnership Portal. [8,9,10,11,12] There is no evidence of an after action review in

the past year for Seychelle listed by the WHO. [13] There is no evidence of relevant media reports or academic studies.

- [1] Ministry of Foreign Affairs and Tourism. 4 January 2021. "Public Health (Infectious Disease) Regulations". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2173]. Accessed 4 January 2021.
- [2] SeyLII. 20 March 2020. "Public Health Emergency Notice, 2020". [<https://seylli.org/sc/legislation/si/2020/32>]. Accessed 4 January 2021.
- [3] Ministry of Foreign Affairs and Tourism. 7 May 2020. "Covid-19 (Coronavirus Disease) Public Health (Infectious Disease) Regulations Orders". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2052]. Accessed 4 January 2021.
- [4] Office of the President of the Republic of Seychelles. 20 March 2020. "Address by President Danny Faure on Measures to Address the COVID-19 Situation". [<http://www.statehouse.gov.sc/news/4777/address-by-president-danny-faure-on-measures-to-address-the-covid-19-situation>]. Accessed 4 January 2021.
- [5] Office of the President of the Republic of Seychelles. 27 August 2020. "Cabinet Business - Wednesday 26th August 2020". [<http://www.statehouse.gov.sc/index.php/cabinet-decisions/4945/cabinet-business-wednesday-26th-august-2020>]. Accessed 4 January 2021.
- [6] Ministry of Foreign Affairs and Tourism. 28 May 2020. "Press Communique from Public Health Authority". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2074]. Accessed 4 January 2021.
- [7] Seychelles Nation. 12 January 2021. "National Integrated Emergency Management Plan". [<http://www.nation.sc/articles/7520/national-integrated-emergency-management-plan>]. Accessed 24 January 2021.
- [8] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [9] World Health Organization. "Simulation Exercises". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 4 January 2021.
- [10] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.
- [11] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 4 January 2021.
- [12] World Health Organization. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH): Seychelles". [<https://extranet.who.int/sph/country/seychelles>]. Accessed 4 January 2021.
- [13] World Health Organization. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 4 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 evidence that Seychelles 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. There is no evidence of an after action review in the past year for Seychelles listed by the World Health Organization (WHO). [1] There is no additional relevant information shared via the public website of the Ministry of Health, the WHO list of all biological exercises; the WHO Seychelles country profile; the WHO Regional Office for Africa website; or the WHO International Health Regulations Strategic Partnership Portal. [2,3,4,5,6] The Department of Risk and Disaster Management, which is responsible for coordinating disaster responses according to the 2019 Seychelles National Integrated Emergency Management Plan, does not have a public website. [7]

- [1] World Health Organization. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 4 January 2021.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [3] World Health Organization. "Simulation Exercises". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 4 January 2021.
- [4] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.
- [5] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 4 January 2021.
- [6] World Health Organization. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH): Seychelles". [<https://extranet.who.int/sph/country/seychelles>]. Accessed 4 January 2021.
- [7] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 evidence that Seychelles has, in the past year, undergone a national-level biological threat-focused exercise, let alone such an exercise that has included private sector representatives. There is no relevant information shared via the World Health Organization (WHO) list of after action reviews; or via the public website of the Ministry of Health; the WHO list of all biological exercises; the WHO Seychelles country profile; the WHO Regional Office for Africa website; or the WHO International Health Regulations Strategic Partnership Portal. [1,2,3,4,5,6] The Department of Risk and Disaster Management, which is responsible for coordinating disaster responses according to the 2019 Seychelles National Integrated Emergency Management Plan, does not have a public website. [7]

- [1] World Health Organization. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 4 January 2021.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [3] World Health Organization. "Simulation Exercises". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 4 January 2021.
- [4] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.
- [5] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 4 January 2021.
- [6] World Health Organization. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH): Seychelles". [<https://extranet.who.int/sph/country/seychelles>]. Accessed 4 January 2021.
- [7] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

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 to show that Seychelles has in place a permanent Emergency Operations Center (EOC) that specifically covers health issues, though a Public Health Emergency Operations Center (PHEOC) appears to have been activated in response to the COVID-19 pandemic in 2020. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles has "a National Emergency Operations Centre (NEOC), located at DRDM [Department of Risk and Disaster Management], for national coordination of emergencies." [1] However, the JEE's descriptions suggest that the NEOC does not have a mandate for health issues, since the JEE recommends that Seychelles "develop and operationalize plans and SOPs for a public health emergency operations centre (PHEOC)" as that is missing from the country. [1] During the COVID-19 pandemic, however, there is evidence that a PHEOC in operation, but there is not enough publicly available information to show that it is a permanent institution, when it was launched, or under what legal or planning framework it was launched. Seychelles declared a Public Health Emergency on 20 March 2020 in response to the COVID-19 pandemic. [2,3,4,5] Subsequent government releases show that a PHEOC has been active in response to the declaration. [6] It is not clear if the PHEOC was established under the rubric of the 2019 National Integrated Emergency Management Plan (NIEMP), which was approved by the cabinet in August 2020, or under some other framework. The NIEMP describes some of the functions of the NEOC; the NIEMP also describes health-related disaster-response activities, but it does not link its health-related activities to the NEOC. The NIEMP does not describe the existence of a PHEOC. [7,8] Neither the Department of Risk and Disaster Management, the NEOC, nor the PHEOC has a public website. There is no additional relevant information shared via the public website of the Ministry of Health. [9]

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Foreign Affairs and Tourism. 4 January 2021. "Public Health (Infectious Disease) Regulations". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2173]. Accessed 4 January 2021.

[3] SeyLII. 20 March 2020. "Public Health Emergency Notice, 2020". [<https://seylit.org/sc/legislation/si/2020/32>]. Accessed 4 January 2021.

[4] Ministry of Foreign Affairs and Tourism. 7 May 2020. "Covid-19 (Coronavirus Disease) Public Health (Infectious Disease) Regulations Orders". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2052]. Accessed 4 January 2021.

[5] Office of the President of the Republic of Seychelles. 20 March 2020. "Address by President Danny Faure on Measures to Address the COVID-19 Situation". [<http://www.statehouse.gov.sc/news/4777/address-by-president-danny-faure-on-measures-to-address-the-covid-19-situation>]. Accessed 4 January 2021.

[6] Ministry of Foreign Affairs and Tourism. 28 May 2020. "Press Communique from Public Health Authority". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2074]. Accessed 4 January 2021.

[7] Office of the President of the Republic of Seychelles. 27 August 2020. "Cabinet Business - Wednesday 26th August 2020". [<http://www.statehouse.gov.sc/index.php/cabinet-decisions/4945/cabinet-business-wednesday-26th-august-2020>]. Accessed 4 January 2021.

[8] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 4 January 2021.

28 December 2020.

[9] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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 evidence that Seychelles' Emergency Operations Center (EOC) is required to conduct a drill for a public health emergency scenario at least once per year, nor is there evidence that they conduct a drill at least once per year. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles has "a National Emergency Operations Centre (NEOC), located at DRDM [Department of Risk and Disaster Management], for national coordination of emergencies." [1] However, the JEE does not include any description of the operations of the NEOC. Further, the JEE's description suggests that the NEOC does not have a mandate to deal specifically with health emergencies. [1] The JEE does, however, note that a public health emergency preparedness and response plan is in place, and is tested every two years through tabletop and functional exercises" in Seychelles. But the JEE's description of these exercises does not mention whether or how they include the NEOC. [1] Additionally, the JEE recommends that Seychelles "develop a regular simulation exercise plan, and regularly conduct drills and simulations." [1] During the COVID-19 pandemic, there is evidence that a Public Health Emergency Operations Center (PHEOC) is in operation, but there is not enough publicly available information to show whether it is a permanent institution, when it was launched, under what legal or planning framework it was launched, or whether it is required to conduct drills. [2] The 2019 National Integrated Emergency Management Plan (NIEMP) describes some of the functions of the NEOC; the NIEMP also describes health-related disaster-response activities, but it does not link its health-related activities to the NEOC or describe whether it is required to conduct drills. The NIEMP does not describe the existence of a PHEOC. [3,4] Neither the Department of Risk and Disaster Management, the NEOC, nor the PHEOC has a public website. There is no additional relevant information shared via the public website of the Ministry of Health. [5]

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Foreign Affairs and Tourism. 28 May 2020. "Press Communique from Public Health Authority". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2074]. Accessed 4 January 2021.

[3] Office of the President of the Republic of Seychelles. 27 August 2020. "Cabinet Business - Wednesday 26th August 2020". [<http://www.statehouse.gov.sc/index.php/cabinet-decisions/4945/cabinet-business-wednesday-26th-august-2020>]. Accessed 4 January 2021.

[4] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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 public evidence to show that the Seychelles' 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. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles has "a National Emergency Operations Centre (NEOC), located at DRDM [Department of Risk and Disaster Management], for national coordination of emergencies." [1] However, the JEE does not include any description of the operations of the NEOC. Further, the JEE's description suggests that the NEOC does not have a mandate to deal specifically with health emergencies. [1] The JEE does, however, note that "Seychelles has participated in a number of training and simulation exercises for disease outbreaks with the potential to spread across borders, through DRDM [Department of Risk and Disaster Management] programmes and projects. Examples include tabletop and functional exercises for Ebola preparedness." But the JEE's description of these exercises does not mention whether or how they included the NEOC. [1] During the COVID-19 pandemic, there is evidence that a Public Health Emergency Operations Center (PHEOC) is in operation, but there is not enough publicly available information to show whether it is a permanent institution, when it was launched, under what legal or planning framework it was launched, or whether it has conducted an exercise or initiated a coordinated emergency response, in the last year, within 120 minutes of the identification of a public health emergency. [2] The 2019 National Integrated Emergency Management Plan (NIEMP) describes some of the functions of the NEOC; the NIEMP also describes health-related disaster-response activities, but it does not link its health-related activities to the NEOC or describe whether it is required to conduct drills. The NIEMP does not describe the existence of a PHEOC. [3,4] Neither the Department of Risk and Disaster Management, the NEOC, nor the PHEOC has a public website. There is no additional relevant information shared via the public website of the Ministry of Health. [5]

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Foreign Affairs and Tourism. 28 May 2020. "Press Communique from Public Health Authority". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2074]. Accessed 4 January 2021.

[3] Office of the President of the Republic of Seychelles. 27 August 2020. "Cabinet Business - Wednesday 26th August 2020". [<http://www.statehouse.gov.sc/index.php/cabinet-decisions/4945/cabinet-business-wednesday-26th-august-2020>]. Accessed 4 January 2021.

[4] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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 public evidence to suggest that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event in Seychelles, nor that there are standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack) in Seychelles. While the Joint External Evaluation report (JEE) for Seychelles, published in 2018, notes that "Seychelles has had experience in the last year of joint response between public health department and security forces", it is unclear whether exercises were carried out, or if any MOUs were reached for response towards deliberate biological events. [1] There is no additional or more recent evidence shared via the public website of the Ministry of Health. [2] The 2019 National Integrated Emergency Management Plan (NIEMP), which was approved by the cabinet in August 2020, names terrorist attacks as a significant risk in Seychelles that would have major impacts on public health, but does not include an agreement or operating procedure that explicitly links public health and security authorities to respond to deliberate biological attacks. [3] The Department of Risk and Disaster Management does not have a public website.

[1] World Health Organization. Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles Mission report: 5-9 March 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

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 insufficient evidence to show that Seychelles has a risk communication plan that outlines how messages will reach populations and sectors with different communications needs. Although the Joint External Evaluation report (JEE) for Seychelles, published in 2018, indicates that at least one risk communication plan exists as part of the strategy to respond to a particular disease (plague), this plan and other disease-specific plans are not publicly available, so it is not possible to evaluate their contents. The JEE says that a World Health Organization "consultant has assisted Seychelles in developing a risk communication strategic plan" as part of the strategy to respond to plague outbreaks. The plan in question, "Seychelles: Preparedness for the Plague", a 2017 document, "was developed and implemented in good time, and is currently allowing multi actor scaling." [1,3] Further, the JEE assigns Seychelles a score of 3 for the indicator "Risk communication systems (plans, mechanisms, etc.)", indicating that "formal government arrangements and systems in place with standard operating procedures and capacity with multisectoral and multi-stakeholder involvement, but insufficient allocation and alignment of

human and financial resources". [1,2] Despite these descriptions in the JEE, however, it is not possible to confirm the content of the plague plan, because (as mentioned above) the risk communication portion of the plan is not publicly available; further, it applies only to the plague and not public health emergencies in general. There is no relevant information shared via the public website of the Ministry of Health. [4] The Department of Risk and Disaster Management does not have a public website. The 2019 National Integrated Emergency Management Plan (NIEMP), which was approved by the cabinet in August 2020, does discuss lines of responsibility for public information during an emergency, but does not contain a section on risk communication specifically, or risk communication related to public health. [5] The JEE mentions that Seychelles has plans for specific diseases, such as "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and an avian influenza plan. However, like the plague plan's risk communication component, these are not shared via a public website. [1]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] World Health Organization (WHO). 2005. "Joint External Evaluation Tool - International Health Regulations (IHR) 2005." [https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1]. Accessed 4 January 2021.
- [3] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague". [<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSC005do.pdf>]. Accessed 4 January 2021.
- [4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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: 1

There is evidence that Seychelles has in place national public health emergency response plan which has a section detailing a risk communication plan that is specifically intended for use during a public health emergency. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, a World Health Organization "consultant has assisted Seychelles in developing a risk communication strategic plan." [1] However, this plan is only for plague outbreaks and not for a public health emergency at large. The plan in question, "Seychelles: Preparedness for the Plague", a 2017 document, "was developed and implemented in good time, and is currently allowing multi actor scaling." [1] Further, the JEE assigns Seychelles a score of 3 for the indicator "Risk communication systems (plans, mechanisms, etc.)", indicating that "formal government arrangements and systems in place with standard operating procedures and capacity with multisectoral and multi-stakeholder involvement, but insufficient allocation and alignment of human and financial resources". [1,2] The risk communication portion of the plan is not publicly available. [3] There is no relevant information shared via the public website of the Ministry of Health. [4] The Department of Risk and Disaster Management does not have a public website. The 2019 National Integrated Emergency Management Plan (NIEMP), which was approved by the cabinet in August 2020, though it does discuss lines of responsibility for public information during an emergency, does not contain a section on risk communication specifically, or risk communication related to public health. [5] The JEE mentions that Seychelles has plans for

specific diseases, such as "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and an avian influenza plan. However, like the plague plan's risk communication component, these are not shared via a public website. [1]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] World Health Organization (WHO). 2005. "Joint External Evaluation Tool - International Health Regulations (IHR) 2005." [https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1]. Accessed 4 January 2021.
- [3] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague". [<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSC005do.pdf>]. Accessed 4 January 2021.
- [4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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: 0

There is insufficient evidence to show that Seychelles has a risk communication plan that designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. Although the Joint External Evaluation report (JEE) for Seychelles, published in 2018, indicates that at least one risk communication plan exists as part of the strategy to respond to a particular disease (plague), this plan and other disease-specific plans are not publicly available, so it is not possible to evaluate their contents. The JEE says that a World Health Organization "consultant has assisted Seychelles in developing a risk communication strategic plan" as part of the strategy to respond to plague outbreaks. The plan in question, "Seychelles: Preparedness for the Plague", a 2017 document, "was developed and implemented in good time, and is currently allowing multi actor scaling." [1,2] Further, the JEE assigns Seychelles a score of 3 for the indicator "Risk communication systems (plans, mechanisms, etc.)", indicating that "formal government arrangements and systems in place with standard operating procedures and capacity with multisectoral and multi-stakeholder involvement, but insufficient allocation and alignment of human and financial resources". [1,3] Despite these descriptions in the JEE, however, it is not possible to confirm the content of the plague plan, because (as mentioned above) the risk communication portion of the plan is not publicly available; further, it applies only to the plague and not public health emergencies in general. There is no relevant information shared via the public website of the Ministry of Health. [4] The Department of Risk and Disaster Management does not have a public website. The 2019 National Integrated Emergency Management Plan (NIEMP), which was approved by the cabinet in August 2020, does state that that the Department of Risk and Disaster Management is responsible for coordinating public information during an emergency. But the NIEMP does not contain a section on risk communication specifically, or risk communication related to public health. [5] The JEE mentions that Seychelles has plans for specific diseases, such as "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and an avian influenza plan. However, like the plague plan, these are not shared via a public website. [1]

- [1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] World Health Organization (WHO). 2005. "Joint External Evaluation Tool - International Health Regulations (IHR) 2005." [https://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf?sequence=1]. Accessed 4 January 2021.
- [3] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague". [<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSCO05do.pdf>]. Accessed 4 January 2021.
- [4] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.
- [5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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, the Seychelles public health system has actively shared messages via online media platforms to inform the public about ongoing public health concerns and dispel misinformation; however, posts on issues besides COVID-19 were sporadic and dealt more with routine public health information rather than ongoing public health emergencies. Since the onset of the COVID-19 pandemic in spring 2020, the Ministry of Health (MOH) has been sharing information about the pandemic on a verified Facebook page. [1,2,3] In addition to case count updates and information about how to limit exposure risk to COVID-19, the MOH Facebook account has cautioned against the sharing of misinformation. [1,2,3] Aside from the information about the COVID-19 pandemic, the MOH Facebook account also shares information on non-emergency public health issues, such as oral hygiene and eating healthy. [3,4] The MOH also has an unverified Twitter account that has been dormant since 2018. [5] The MoH has also created a webpage specifically to share information about the COVID-19 pandemic, and also shares information about the pandemic on its main site. [6] The Department of Disaster Risk Management has unverified Twitter and Facebook pages that have not been updated in a year or more. [6,7,8]

- [1] Facebook. "Ministry of Health Seychelles". [<https://www.facebook.com/mohseychellesofficial/>]. Accessed 8 January 2021.
- [2] Facebook. 6 January 2021. Post on the feed of @mohseychellesofficial. [<https://www.facebook.com/mohseychellesofficial/posts/1620906358110489>]. Accessed 8 January 2021.
- [3] Facebook. 8 January 2021. Post on the feed of @mohseychellesofficial. [<https://www.facebook.com/mohseychellesofficial/posts/1621856911348767>]. Accessed 8 January 2021.
- [4] Facebook. 17 January 2021. Post on the feed of @mohseychellesofficial. [<https://fb.watch/3e8ziF85Fx/>]. Accessed 24 January 2021.
- [5] Twitter. @MoH_Seychelles. [https://twitter.com/moh_seychelles?lang=en]. Accessed 8 January 2021.
- [6] Ministry of Health. "COVID-19 in Seychelles". [<http://www.health.gov.sc/index.php/covid-19/covid-19-in-seychelles/>]. Accessed 28 December 2020.
- [7] Twitter. @DRDM_Seychelles. [https://twitter.com/drdrm_seychelles?lang=en]. Accessed 8 January 2021.

[8] Facebook. "Drdm Seychelles". [<https://www.facebook.com/drdm.seychelles>]. Accessed 8 January 2021.

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 evidence that senior Seychelles leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. Twitter accounts associated with the president of the Seychelles do not show any evidence suggesting such misinformation sharing. [1,2] There is no relevant evidence in local and international media outlets. [3,4]

[1] Twitter. @DannyFaure. [<https://twitter.com/dannyfaure?lang=en>]. Accessed 8 January 2021.

[2] Twitter. @StateHouseSey. [<https://twitter.com/statehousesey?lang=en>]. Accessed 8 January 2021.

[3] BBC. "Seychelles". [<https://www.bbc.com/news/topics/clm1wpx5nmlt/seychelles>]. Accessed 8 January 2021.

[4] Seychelles Nation. [<http://www.nation.sc/>]. Accessed 8 January 2021.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 58.77

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: 198.15

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: 10.18

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: 9.62

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: 0

There is evidence that Seychelles 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 in the past year. The World Trade Organisation's "COVID-19: Measures affecting trade in goods" list confirms that Seychelles "Implementation of import licensing requirements on disinfectant and hand sanitizers (HS 3808.94.10; 3808.94.90), due to the COVID-19 pandemic" Effective 20 October 2020. [1]

[1] World Trade Organisation. June 4, 2021. "COVID-19: Measures affecting trade in goods".

[https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm] Accessed June 24, 2021.

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 evidence that Seychelles 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. There is no relevant information shared via a public website by the the Ministry of Health; the Ministry of Fisheries and Agriculture; or the Ministry of Foreign Affairs and Tourism. [1,2,3] Publicly available documents describing Seychelle's response to the COVID-19 pandemic do not indicate the existence of such restrictions. [4,5,6] There is no evidence of such restrictions in media reports. The International Trade Centre (ITC), in its list of temporary COVID-19 trade measures, does not report any relevant restrictions. [7] There is no relevant evidence in local and international media outlets. [8,9]

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 4 January 2021.

[3] Ministry of Foreign Affairs and Tourism. [<http://tourism.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Foreign Affairs and Tourism. 7 May 2020. "Covid-19 (Coronavirus Disease) Public Health (Infectious Disease) Regulations Orders". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2052]. Accessed 4 January 2021.

[5] Office of the President of the Republic of Seychelles. 20 March 2020. "Address by President Danny Faure on Measures to Address the COVID-19 Situation". [<http://www.statehouse.gov.sc/news/4777/address-by-president-danny-faure-on-measures-to-address-the-covid-19-situation>]. Accessed 4 January 2021.

[6] Ministry of Health. "COVID-19: Guidelines". [<http://www.health.gov.sc/index.php/covid-19/guidelines/>]. Accessed 4 January 2021.

[7] International Trade Centre. "COVID-19 Temporary Trade Measures". [<https://www.macmap.org/covid19>]. Accessed 4 January 2021.

[8] BBC. "Seychelles". [<https://www.bbc.com/news/topics/clm1wxp5nmlt/seychelles>]. Accessed 8 January 2021.

[9] Seychelles Nation. [<http://www.nation.sc/>]. Accessed 8 January 2021.

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: 0

There is evidence that Seychelles has, in the past year, implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. As part of its measures to respond to the COVID-19 pandemic, in March 2020 Seychelles banned traveling foreign workers from returning to the Seychelles. [1] In May 2020, the country issued a blanket ban on international arrivals, except with special approval of the Public Health Commissioner. [2] The ban was initiated by regulations issued in response to the COVID-19 pandemic, under the Public Health Act of 2015. [2,3] The ban was modified and eased in June 2020. [4] As of January 2021, visitors were allowed into Seychelles after following certain procedures, such as a negative PCR test for COVID-19 and having spent at least 14 days in one of a list of approved countries before entering Seychelles. [5]

[1] International Science Council. 23 March 2020. "20 March 2020 - Public Health Emergency Declared: Foreign Travel Banned, Schools Closed, Military Reserves Activated". [<https://www.ingsa.org/covid-19-policy-tracker/africa/seychelles/20-march-2020-public-health-emergency-declared-foreign-travel-banned-schools-closed-military-reserves-activated/>]. Accessed 8 January 2021.

[2] Ministry of Foreign Affairs and Tourism. 7 May 2020. "Covid-19 (Coronavirus Disease) Public Health (Infectious Disease) Regulations Orders". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2052]. Accessed 4 January 2021.

[3] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 2020.

[4] Hohnholz, Linda. 4 June 2020. "Seychelles Travel Restrictions from COVID-19 Gradually Lifted". eTN. [<https://eturbonews.com/573567/seychelles-travel-restrictions-from-covid-19-gradually-lifted/>]. Accessed 8 January 2021.

[5] Ministry of Foreign Affairs and Tourism. 8 January 2021. "Travel Advisory for Visitors from Permitted Countries". [<http://tourism.gov.sc/covid-19-guidelines/>]. Accessed 8 January 2021.

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: 212.12

2016

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 807.73

2016

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 evidence that Seychelles 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. According to the Joint External Evaluation report (JEE) of the IHR Core Capacities of Seychelles, published in 2018, "although there are national plans addressing human resources for health, there are no focused plans or strategies to develop the public health workforce." [1] Among the publicly available documents that fits the JEE's description is the Seychelles National Health Strategic Plan 2016-2020. The Strategic Plan identifies several gaps in the current health workforce such, such as inadequate education and training; a lack of needs-based planning and projection; over-reliance on foreign medical staff; a need to improve ambulance operations; a need to improve medical staff productivity; and poor retention; among other observations. The Strategic Plan also identifies objectives to remedy these gaps, but as the JEE describes, most of these objectives are not "focused" or quantifiable. For example, the goals include "in service training needs mapped"; "New staff recruited and deployed according to norms and standards"; "salaries... paid as scheduled"; "guidance on multi skilling and task sharing in place"; "systems of accountability, monitoring and evaluation of human resources productivity in use"; among other similar goals. The Strategic Plan generally does not describe specific interventions that could be made to achieve these goals. [2] To this effect, the JEE recommends Seychelles "develop a public health workforce strategy that addresses identified gaps in existing human resources in the human, animal and environmental health sectors, and which emphasizes cross disciplinary working by a multi-skilled public health workforce." [1] There is no relevant information shared via the public websites of the Ministry of Health; the Ministry of Education and Human Resource Development; or the Ministry of Employment and Social Affairs. [3,4,5,6]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[3] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Education and Human Resource Development. [<http://www.education.gov.sc/Pages/default.aspx>]. Accessed 4 January 2021.

[5] Ministry of Employment and Social Affairs. [<http://www.employment.gov.sc/>]. Accessed 28 December 2020

[6] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 360

2011

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 evidence that Seychelles has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit or patient isolation facility located within the country. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "appropriate isolation facilities should be established in Seychelles." [1] No evidence of such facilities can be found on their Ministry of Health website. [2] Seychelles' largest hospital, Seychelles Hospital Victoria, does not have its own website, though it does have a Facebook page (which does not share relevant information). [3] There is no evidence of Seychelles having other large hospitals in the country which have an online presence either. In response to the COVID-19 pandemic, the government announced the establishment of new "isolation" facilities, but there is insufficient publicly available information to assess their precise features and if they are biocontainment units. [4]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Facebook. "Seychelles Hospital Victoria." [<https://www.facebook.com/pages/Seychelles-Hospital-Victoria/209804949096165>]. Accessed 28 December 2020.

[4] Ministry of Health. 20 March 2020. "Department of Health expands isolation and quarantine facilities". [<http://www.health.gov.sc/index.php/2020/03/20/departement-of-health-expands-isolation-and-quarantine-facilities/>]. Accessed 4 January 2021.

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: 1

There is evidence to show that Seychelles has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years, but no evidence that it has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. In response to the COVID-19 pandemic, the government announced the establishment of new "isolation" facilities, specifically at the Family Hospital at Perseverance. There is, however, limited information about the capacity of the isolation units themselves and what they include. [1] The hospital does not appear to have its own website. The government does not share a master list of isolation facilities. Aside from the response to the COVID-19 pandemic, there is no other recent evidence of the expansion of isolation facilities. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "appropriate isolation facilities should be established in Seychelles." [2] No evidence of such facilities can be found on the Ministry of Health website. [2] Seychelles' largest hospital, Seychelles Hospital Victoria, does not have its own website, though it does have a Facebook page (which does not share relevant information). [3] There is no evidence of Seychelles having other large

hospitals in the country which have an online presence either. There is no mention in the JEE or other public health planning documents, such as the Seychelles National Health Strategic Plan 2016-2020, of a plan to expand isolation capacity in response to an infectious disease outbreak in the last two years. [4] There is no evidence of relevant media reports or academic studies. The Department of Risk and Disaster Management does not have a public website.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Facebook. "Seychelles Hospital Victoria." [<https://www.facebook.com/pages/Seychelles-Hospital-Victoria/209804949096165>]. Accessed 28 December 2020.

[4] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 23 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: 0

There is not enough evidence that Seychelles has a national procurement protocol in place which can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory and medical supplies. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "there is a need for a more effective system for procurement and stockpiling laboratory reagents and consumables to avoid stock outs". The JEE mentions that that the government has agreements with suppliers of public health commodities "in case of emergency" but does not mention protocols for acquiring medical supplies for routine needs. [1] No other relevant information is shared via the public websites of the Ministry of Health, the Ministry of Fisheries and Agriculture, or the National Institute of Health and Social Studies. [2,3,4] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has a public website. The government's Procurement Oversight Unit (POU) provides information about procurement laws, and has relevant documents available for download (such as a standard bidding document), but does not provide a portal or mechanism through which to conduct procurement. Nor does it contain information specific to laboratory and medical supplies (though there is no indication that they are excluded from the procurement policies shared on the POU website). [5]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 4 January 2021.

[4] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[5] Procurement Oversight Unit. [<http://www.pou.gov.sc/>]. Accessed 4 January 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: 2

There is evidence that Seychelles maintains a stockpile of some medical supplies for national use during a public health emergency. There is evidence for the stockpiling of essential medicines, but not other classes of medical supplies, such as personal protective equipment (PPE). According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "no national stockpile of MCM assets exists, but a minimum stock of three months worth of drugs and consumables (such as doxycycline, cotrimoxazole, ciprofloxacin etc. for plague) is maintained at the Central Medical Stores (CMS). This is also regarded as a buffer stock for any epidemic". The JEE goes on to note that "Seychelles faces a unique set of geographic and logistical challenges regarding receipt and deployment of medical countermeasures, and in deploying personnel during public health events of international significance. These challenges are exacerbated by the limited health workforce and the difficulties of managing expensive national stockpiles of medical countermeasures assets." [1] And "there is no national framework for Medical countermeasures (MCM) and personnel deployment." [1] To this effect, the JEE recommends that Seychelles "develop a medical countermeasures deployment plan that addresses the receipt of assets and options for country level and/or regional stockpiling." [1] The JEE does not specifically discuss the availability of medical supplies such as PPE. [1] There is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public website. The Medicines Regularity Authority (a function of the Ministry of Health) does not have a standalone website. [4] The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not contain relevant provisions. [5]

[1] World Health Organization (WHO). 2018. "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 8 January 2020.

[3] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 4 January 2021.

[4] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 28 December 2020.

[5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 no evidence that Seychelles maintains a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "Seychelles faces a unique set of geographic and logistical challenges regarding receipt and deployment of medical countermeasures, and in deploying personnel during public health events of international significance. These challenges are exacerbated by the limited health workforce and the difficulties of managing expensive national stockpiles of medical countermeasures assets." [1] The JEE specifically notes gaps in laboratory supply stockpiling, noting that "is a need for a more effective system for procurement and stockpiling laboratory reagents and consumables to avoid stock outs". [1] There is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public website. The Medicines Regularity Authority (a function of the Ministry of Health) does not have a standalone website. [4] The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not contain relevant provisions. [5]

[1] World Health Organization (WHO). 2018. "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 8 January 2020.

[3] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 4 January 2021.

[4] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 28 December 2020.

[5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 evidence that Seychelles conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. The existence of a stockpile of certain medical supplies is confirmed by the Joint External Evaluation (JEE), published in 2018, but there is no mention in the JEE of an annual review. [1] Further, the JEE notes that "Seychelles faces a unique set of geographic and logistical challenges regarding receipt and deployment of medical countermeasures, and in deploying personnel during public health events of international significance. These challenges are exacerbated by the limited health workforce and the difficulties of managing expensive national stockpiles of medical countermeasures assets." [1] And "there is no national framework for Medical countermeasures (MCM) and personnel deployment." [1] To this effect, the JEE recommends that Seychelles "develop a medical countermeasures deployment plan that addresses the receipt of assets and options for country level and/or regional stockpiling." [1] This description indicates that Seychelles may have a limited capacity to assess the content of its stockpile. The JEE does not specifically discuss the

availability of medical supplies such as personal protective equipment. [1] There is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public website. The Medicines Regularity Authority (a function of the Ministry of Health) does not have a standalone website. [4] The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not contain relevant provisions. [5]

[1] World Health Organization (WHO). 2018. "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 23 April 2021.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 23 April 2021.

[3] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 23 April 2021.

[4] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 23 April 2021.

[5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 23 April 2021.

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 to show that Seychelles has a plan or agreement to leverage domestic manufacturing capacity to produce medical supplies (including medical equipment, personal protective equipment, or medical countermeasures) for national use during a public health emergency, nor that it has a plan or mechanism to secure such supplies. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, notes that, due to the challenges of stockpiling public health commodities in preparation for an emergency, "Seychelles has signed agreements with suppliers in case of emergency." However, the JEE does not specify whether the "public health commodities" in question include medical supplies. [1] Additionally, the referenced agreements are not shared via a public website, so it is not possible to evaluate their contents. The JEE also notes that "there are no existing frameworks or MOUs with regional or international partners for stockpiling, maintaining and/or sharing MCM [medical countermeasure] assets". [1] On the other hand, the JEE mentions that that Seychelles "has well established credit lines with MCM manufacturers all over the world"; however, this statement is not specific enough to show that there is mechanism to procure MCMs quickly during a public health emergency. [1] There is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public website. The Medicines Regularity Authority (a function of the Ministry of Health) does not have a standalone website. [4] The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not

contain relevant provisions. [5]

- [1] World Health Organization (WHO). 2018. "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 8 January 2020.
- [3] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 4 January 2021.
- [4] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 28 December 2020.
- [5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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 insufficient evidence to show that Seychelles has a plan or agreement to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency, nor that it has a plan or mechanism to secure such supplies. The Joint External Evaluation report (JEE) for Seychelles, published in 2018, notes that, due to the challenges of stockpiling public health commodities in preparation for an emergency, "Seychelles has signed agreements with suppliers in case of emergency." However, the JEE does not specify whether the "public health commodities" in question include laboratory supplies such as reagents and media. [1] Additionally, the referenced agreements are not shared via a public website, so it is not possible to evaluate their contents. There is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public website. The Medicines Regularity Authority (a function of the Ministry of Health) does not have a standalone website. [4] The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not contain relevant provisions. [5]

- [1] World Health Organization (WHO). 2018. "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 8 January 2020.
- [3] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 4 January 2021.
- [4] World Health Organization. "List of Globally identified Websites of Medicines Regulatory Authorities." November 2012. [https://www.who.int/medicines/areas/quality_safety/regulation_legislation/list_mra_websites_nov2012.pdf]. Accessed 28 December 2020.

[5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf]. Accessed 28 December 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 evidence that Seychelles has a plan, program, or guideline in place for dispensing medical countermeasures for national use during a public health emergency. According to the Joint External Evaluation (JEE) of the IHR Core Capacities of Seychelles, conducted in March 2018, "there is no national framework for Medical countermeasures (MCM) and personnel deployment [and] there are no existing frameworks or MOUs with regional or international partners for stockpiling, maintaining and/or sharing MCM assets." [1] There is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public websites. The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not contain relevant provisions. [4]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 4 January 2021.

[3] Office of the President of the Republic of Seychelles. "The Cabinet". [http://www.statehouse.gov.sc/the-cabinet]. Accessed 4 January 2021.

[4] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf]. Accessed 28 December 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 evidence of Seychelles having a public plan in place to receive health personnel from other countries to respond to a public health emergency. According to the Joint External Evaluation (JEE) of the IHR Core Capacities of Seychelles, conducted in March 2018, "there is no national framework for Medical countermeasures (MCM) and personnel deployment."

[1] To this effect, the JEE recommends that Seychelles "develop a personnel deployment framework or plan that outlines the minimum standards for receipt (and deployment) of personnel during public health emergencies." [1] here is no relevant information shared via the public website of the Ministry of Health. [2] The country does not have an online presence for its Ministry of Defence or equivalent agency (the president serves as Minister of Defence). [3] The Department of Risk and Disaster Management, which is responsible for coordinating disaster response, does not have a public website. The 2019 Seychelles National Integrated Emergency Management Plan, which was approved by the cabinet in August 2020, does not contain relevant provisions. [4]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 4 January 2021.

[4] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 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: 2

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99

2012

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: 365.42

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 evidence that Seychelles has issued legislation, a policy or a public statement committing to provide prioritized health care services to healthcare workers who become sick as a result of responding to a public health emergency. There is no relevant information shared via the public website of the Ministry of Health. [1] National planning documents, such as the 2019 Seychelles National Integrated Emergency Management Plan, the Ministry of Health's 2019 annual report, and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information or provisions. [2,3,4] Seychelles plans for specific diseases mentioned in the Joint External Evaluation report (JEE, published in 2018), including an avian influenza plan, "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. [5] A 2017 plague plan titled and "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague", which appears to have been prepared for Seychelles via an outside consultancy, does not include any relevant provisions. [6] There are no relevant provisions in the 2015 Public Health Act. [7]

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[3] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[4] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28

December 2020.

[5] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[6] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague".

[<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSC005do.pdf>]. Accessed 4 January 2021.

[7] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>].

Accessed 28 December 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 insufficient to show that Seychelles has a system in place for public health officials and healthcare workers to communicate during a public health emergency. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "members of the Risk Communications Committee are task shifting and using personal resources (such as phones), making it difficult to ensure all activities are of a high quality standard." The JEE recommends that Seychelles "work with policy makers to provide budget lines for communications infrastructure (including a communications centre in the [Public Health Emergency Operations Centre]); access to software for designing information, education and communication (IEC) materials; and access to the required hardware and other assets (phones, data, etc.)," as this is missing. [1] There is no relevant information shared via the public website of the Ministry of Health. [1] The 2019 Seychelles National Integrated Emergency Management Plan, approved by the cabinet in August 2020, contains various statements about the importance of maintaining communications infrastructure, and establishes lines of responsibility for restoring communications during a disaster (the lead agency being the Department of Information and Communication Technology). However, it does not include plans for a system for public health officials and healthcare workers to communicate during a public health emergency. [2] There is no relevant information shared via the public website of the Department of Information and Communication Technology. [3] National planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information or provisions. [4,5] Seychelles plans for specific diseases mentioned in the Joint External Evaluation report (JEE, published in 2018), including an avian influenza plan, "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. [6] A 2017 plague plan titled and "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague", which appears to have been prepared for Seychelles via an outside consultancy, does not include any relevant provisions. [7] There are no relevant provisions in the 2015 Public Health Act. [8]

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan".

[<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

- [3] Department of Information and Communication Technology. [<http://www.ict.gov.sc/>]. Accessed 4 January 2021.
- [4] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.
- [5] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.
- [6] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.
- [7] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague". [<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSC005do.pdf>]. Accessed 4 January 2021.
- [8] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 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 to show that Seychelles has a system in place for public health officials and healthcare workers to communicate during a public health emergency, let alone such a system that encompasses healthcare workers in both the public and private sector. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "members of the Risk Communications Committee are task shifting and using personal resources (such as phones), making it difficult to ensure all activities are of a high quality standard." The JEE recommends that Seychelles "work with policy makers to provide budget lines for communications infrastructure (including a communications centre in the [Public Health Emergency Operations Centre]); access to software for designing information, education and communication (IEC) materials; and access to the required hardware and other assets (phones, data, etc.)," as this is missing. [1] There is no relevant information shared via the public website of the Ministry of Health. [1] The 2019 Seychelles National Integrated Emergency Management Plan, approved by the cabinet in August 2020, contains various statements about the importance of maintaining communications infrastructure, and establishes lines of responsibility for restoring communications during a disaster (the lead agency being the Department of Information and Communication Technology). However, it does not include plans for a system for public health officials and healthcare workers to communicate during a public health emergency. [2] There is no relevant information shared via the public website of the Department of Information and Communication Technology. [3] National planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information or provisions. [4,5] Seychelles plans for specific diseases mentioned in the Joint External Evaluation report (JEE, published in 2018), including an avian influenza plan, "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. [6] A 2017 plague plan titled and "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague", which appears to have been prepared for Seychelles via an outside consultancy, does not include any relevant provisions. [7] There are no relevant provisions in the 2015 Public Health Act. [8]

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed

28 December 2020.

[3] Department of Information and Communication Technology. [<http://www.ict.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[6] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[7] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague".

[<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSC005do.pdf>]. Accessed 4 January 2021.

[8] Republic of Seychelles. "Public Health Act, 2015." October 2015. [<http://extwprlegs1.fao.org/docs/pdf/sey150955.pdf>]. Accessed 28 December 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: 0

There is insufficient evidence that Seychelles' national public health system monitors for and tracks the number of health care associated infections that take place in healthcare facilities. Although the Joint External Evaluation report (JEE) for Seychelles, published in 2018, gives Seychelles the highest possible score for "health care-associated infection (HCAI) prevention and control programmes", there is insufficient corroborating evidence to confirm that it tracks such infections. It also states that "there is a need to recruit and train additional staff support activities related to HCAI." [1] the JEE also states that "the IPC [infection prevention and control] programme is managed at the national level by a dedicated IPC nurse, who has ensured that written policies and guidelines are in place, and that both electronic and paper-based monitoring tools are being used." [1] This suggests that a monitoring system for HCAI may exist. The JEE also states that "Seychelles has a system for reviewing AMR surveillance data" which supports the existence of a national monitoring system (at least for AMR). [1] However, despite these descriptions in the JEE, there is no explicit mention on the public website of the Ministry of Health of Seychelles tracking the number of HCAs in healthcare facilities. [2] There is no relevant information shared via the public website of the National Institute of Health and Social Studies. [3] Neither the Seychelles Public Health Laboratory or Clinical Laboratory has a public website. National planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information. [4,5]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] National Institute of Health and Social Studies. [<http://www.nihss.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 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 evidence that Seychelles has a national requirement for ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "the MOH Research and Ethics Committee approves all research projects, including their biosafety and biosecurity aspects." [1] In addition, according to the Seychelles Nation, a local newspaper, "the committee provides technical and ethical assessment for all health research proposals, particularly with respect to the need for carrying out the study involving human participants directly and/or indirectly; acceptability of the research design and study instruments; training and experience of the principal investigator(s); risks and benefits to the participants and assurance that the research will have a direct or potential benefit for the population." [2] From 2011 to 2015, "33 study projects were reviewed by the committee - 22 were approved, eight were deferred and six final reports were collected." [2] The Ministry of Health's 2019 annual report confirms the existence of a Health Research and Ethics Committee. The annual report notes that "eleven research proposals were submitted to the Health Research and Ethics Committee in 2019 of which seven were approved and four needed amendments before approval". [3] There is no evidence that the committee has a public website.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Seychelles Nation. "Seychelles holds first national health research and ethics conference." July 2015. [<http://www.nation.sc/article.html?id=246162>]. Accessed by March 11, 2019.

[3] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 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 evidence of Seychelles having an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. There is no such evidence presented in the Joint External Evaluation report (JEE) for Seychelles, published in 2018. [1] There is no relevant information shared via a public website by the Ministry of Health. [2] National planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information. [3,4] The 2019 Seychelles National Integrated Emergency Management Plan does not contain any relevant provisions. [5] Seychelles does not have a Ministry of Research. [6]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[4] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[5] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[6] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>]. Accessed 28 December 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: 0

There is no evidence that Seychelles has a government agency responsible for approving new medical countermeasures for humans. There is no such evidence presented in their Joint External Evaluation report (JEE) for Seychelles, published in 2018. [1] There is no relevant information shared via the public website of the Ministry of Health. [2] Although Seychelles has a Medicines Regulatory Authority (MRA), according to the World Health Organization's "Pharmaceutical Profile of Seychelles" from September 2011, "there are no legal provisions establishing the powers and responsibilities of the Medicines Regulatory Authority." [3] Furthermore, the MRA only has a limited amount of functions which include inspection, import control, licensing, market control, and quality control; there is no evidence of the MRA having a role in approving new medical countermeasures for humans. There are no details on what licensing entails in this context and whether it is the same as approval. [3] Lastly, the MRA does not have its own website and "there are no legal provisions requiring the MRA to make the list of registered pharmaceutical products publicly available and update it regularly. Medicines are not always registered by their International Non-proprietary Names (INN) or Brand name + INN." [3] National planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information. [4,5] Seychelles does not have a Ministry of Research. [6]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December

2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] World Health Organization. "Pharmaceutical Profile of Seychelles." September 2011.

[https://www.who.int/medicines/areas/coordination/Seychelles_PSCPNarrativeQuestionnaire_30082011.pdf]. Accessed 4 January 2021.

[4] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[6] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet/>]. Accessed 28 December 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 evidence of Seychelles having an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. According to the Joint External Evaluation report (JEE) for Seychelles, published 2018, "in line with African Union recommendations, the Pharmacy Act (1990) is being reviewed to include regulations relating to emergency approvals for medications, reagents and consumables during public health emergencies." However, in the latest "Pharmacy Act" from June 2012, there is no mention of an expedited process for approving medical countermeasures. [2] Although Seychelles has a Medicines Regulatory Authority (MRA), according the World Health Organization's "Pharmaceutical Profile of Seychelles" from September 2011, "there are no legal provisions establishing the powers and responsibilities of the Medicines Regulatory Authority." [3] Furthermore, the MRA only has a limited amount of functions which include inspection, import control, licensing, market control, and quality control; there is no evidence of the MRA having a role in approving new medical countermeasures for humans. [3] Lastly, the MRA does not have its own website and "there are no legal provisions requiring the MRA to make the list of registered pharmaceutical products publicly available and update it regularly. Medicines are not always registered by their International Non-proprietary Names (INN) or Brand name + INN." [3] National planning documents, such as the Ministry of Health's 2019 annual report and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information. [4,5] The 2019 Seychelles National Integrated Emergency Management Plan does not contain any relevant provisions. [6] Seychelles does not have a Ministry of Research. [7] There is no relevant information shared via the public website of the Ministry of Health. [8]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Republic of Seychelles. "Pharmacy Act." June 2012. [<https://seylit.org/sc/legislation/consolidated-act/169>]. Accessed 4 January 2021.

[3] World Health Organization. "Pharmaceutical Profile of Seychelles." September 2011.

[https://www.who.int/medicines/areas/coordination/Seychelles_PSCPNarrativeQuestionnaire_30082011.pdf]. Accessed 4 January 2021.

[4] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[5] Ministry of Health. November 12016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[6] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan".

[<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[7] Office of the President of the Republic of Seychelles. "The Cabinet". [<http://www.statehouse.gov.sc/the-cabinet>].

Accessed 28 December 2020.

[8] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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: 1

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 no evidence that Seychelles has pandemics integrated into the national risk reduction strategy nor is there evidence of a standalone national disaster risk reduction strategy for pandemics. There is no mention of a strategy which covers pandemics according to the Joint External Evaluation report (JEE) for Seychelles, published in 2018. [1] National planning documents, such as the 2019 Seychelles National Integrated Emergency Management Plan, the Ministry of Health's 2019 annual report, and the Seychelles National Health Strategic Plan 2016-2020 do not contain relevant information or

provisions. [2,3,4] Seychelles plans for specific diseases mentioned in the JEE, including an avian influenza plan, "Ebola Virus Disease Preparedness and Response Plan, 2014", "Seychelles Strategic Plan for Ebola Viral Disease Prevention and Containment, 2014", and the "Plague Epidemic 2017—Preparedness and Response Contingency Plan for Plague Outbreak" do not appear to be shared via a public website. [1] A 2017 plague plan titled and "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague", which appears to have been prepared for Seychelles via an outside consultancy, does not include any relevant provisions. [5] There is no evidence of such a strategy shared via the public website of the Ministry of Health. [6] The Department of Risk and Disaster Management does not have a public website.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Department of Risk and Disaster Management. 2019. "Seychelles National Integrated Emergency Management Plan". [<https://www.gfdrr.org/sites/default/files/publication/Seychelles%20NIEMP%20Report%2001%2009%202020.pdf>]. Accessed 28 December 2020.

[3] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[4] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020". [<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

[5] IFRC. October 2017. "Emergency Plan of Action (EPoA) Seychelles: Preparedness for the Plague". [<https://reliefweb.int/sites/reliefweb.int/files/resources/MDRSCO05do.pdf>]. Accessed 4 January 2021.

[6] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

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: 1

There is evidence that Seychelles has an MOU as part of a regional group, with regards to public health emergencies; however, there is evidence of gaps in implementations. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles "has produced a memorandum of understanding (MOU) with all Indian Ocean Commission countries to provide a collaboration and coordination framework to guide preparation for, and response to, public health emergencies with the potential for international spread through seaports and airports." [1] However, the JEE indicates that this MOU may not be fully functioning as intended, noting that it "has not been revised to incorporate issues relevant to cross-border surveillance for seaports and airports in the context of IHR (2005)." [1] Additionally, no evidence of the referenced MOU can be found on their Ministry of Health or the Indian Ocean Commission. [2,3,4] The Department of Risk and Disaster Management does not have a public website. There is no evidence of relevant news articles or academic studies.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 4 January 2021.

[3] Indian Ocean Commission. [http://commissionoceanindien.org/accueil/]. Accessed 4 January 2021.

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 evidence that Seychelles has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to animal health emergencies. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, Seychelles "has produced a memorandum of understanding (MOU) with all Indian Ocean countries to provide a collaboration and coordination framework to guide preparation for, and response to, public health emergencies with the potential for international spread through seaports and airports." [1] However, it is not clear whether this MOU includes animal health emergencies. There is no evidence related to this MOU shared via the public websites of the Ministry of Health or the Indian Ocean Commission. [2,3] The Department of Risk and Disaster Management does not have a public website. There is no evidence of relevant media reports or academic studies.

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf]. Accessed 28 December 2020.

[2] Ministry of Health. [http://www.health.gov.sc/]. Accessed 4 January 2021.

[3] Indian Ocean Commission. [http://commissionoceanindien.org/accueil/]. Accessed 4 January 2021.

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: 1

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: 1

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: 1

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 evidence that Seychelles has allocated national funds to improve capacity to address epidemic threats within the past three years. Budget documents (including budget speeches) going back to 2017 do not contain any mention of epidemic threat preparedness. [1,2,3,4] The 2017 Budget Speech does make reference to strengthening the Public Health Authority to combat communicable diseases, but there is not enough information to show that this priority is specifically directed to addressing epidemic threats. [5] There is no relevant information shared via the public websites of the Ministry of Health or the Ministry of Agriculture. [6,7] There is no other evidence of relevant academic studies or media reports.

[1] Ministry of Finance, Trade, Investment and Economic Planning. "National Budget — 2017". [<http://www.finance.gov.sc/national-budget/15>]. Accessed 4 January 2021.

[2] Ministry of Finance, Trade, Investment and Economic Planning. "National Budget — 2018". [<http://www.finance.gov.sc/national-budget/17>]. Accessed 4 January 2021.

[3] Ministry of Finance, Trade, Investment and Economic Planning. "National Budget — 2019". [<http://www.finance.gov.sc/national-budget/25>]. Accessed 4 January 2021.

[4] Ministry of Finance, Trade, Investment and Economic Planning. "National Budget — 2020". [<http://www.finance.gov.sc/national-budget/35>]. Accessed 4 January 2021.

[5] Ministry of Finance, Trade, and Economic Planning. 9 December 2016. "Seychelles Government Budget for the Fiscal Year 2017" (2017 budget speech). http://www.finance.gov.sc/uploads/national_budget/2017%20BUDGET%20SPEECH.pdf [http://www.finance.gov.sc/uploads/national_budget/2017%20BUDGET%20SPEECH.pdf]. Accessed 4 January 2021.

[6] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 8 January 2020.

[7] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 8 January 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: 1

There is evidence that there exists a publicly identified special emergency fund which Seychelles can access in the face of a public health emergency. According to the Joint External Evaluation report (JEE) for Seychelles, published in 2018, "there is a National Disaster Fund in the event of any emergency." [1,2] Further, the JEE states that there is "a contingency fund is in place for emergency response operations" and "for public health response activities." [1] It should be noted that the applicability of the fund is not specific to public health emergencies, but rather may be accessed for any national disasters. [3] The fund was established under the Public Finances Management Act of 2012, which does not describe the fund. [4] There is no evidence that the text of the specific legal instrument used to establish the fund, Statutory Instrument (SI) 7 of 2013, is available online. [3]

[1] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 2020.

[2] Office of the President of the Republic of Seychelles. 31 January 2013. "President Appoints National Disaster Relief Fund". [<http://www.statehouse.gov.sc/news/2050/president-appoints-national-disaster-relief-fund>]. Accessed 4 January 2021.

[3] Office of the President of the Republic of Seychelles. 12 February 2013. "Meetings Establishing Guidelines For Disaster Relief Assistance". [<http://www.statehouse.gov.sc/news/2055/meetings-establishing-guidelines-for-disaster-relief-assistance>]. Accessed 24 January 2021.

[4] SeyLII. "Public Finances Act, 2012".

[<https://seylli.org/sc/Act%20of%202012%20Public%20Finance%20Management%20Act%2C%202012.pdf>]. Accessed 24 January 2021.

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 evidence that senior leaders have, in the past three years, made a public commitment either to support other countries to improve capacity to address epidemic threats by providing financing or support, or to improve Seychelles' country's domestic capacity to address epidemic threats with such financing or support. Twitter accounts associated with the president of the Seychelles do not show any evidence suggesting such statements. [1,2] There is no relevant evidence in local and international media outlets. [3,4] There is no relevant information shared via the public websites of the Ministry of Health; the Ministry of Fisheries and Agriculture; the Ministry of Foreign Affairs and Tourism; the WHO Seychelles country profile; or the WHO Regional Office for Africa website. [5,6,7,8,9]

[1] Twitter. @DannyFaure. [<https://twitter.com/dannyfaure?lang=en>]. Accessed 8 January 2021.

[2] Twitter. @StateHouseSey. [<https://twitter.com/statehousesey?lang=en>]. Accessed 8 January 2021.

[3] BBC. "Seychelles". [<https://www.bbc.com/news/topics/clm1wxp5nmlt/seychelles>]. Accessed 8 January 2021.

[4] Seychelles Nation. [<http://www.nation.sc/>]. Accessed 8 January 2021.

[5] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[6] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 4 January 2021.

[7] Ministry of Foreign Affairs and Tourism. [<http://tourism.gov.sc/>]. Accessed 4 January 2021.

[8] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.

[9] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 28 December 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 evidence that Seychelles has, in the past three years, invested finances (from donors) to improve domestic capacity to address epidemic threats, but no evidence that Seychelles has requested financing or technical support for those purposes. According to the Global Health Security Funding Tracker dashboard, an estimated US\$5m was disbursed to

Seychelles between 2018 and 2020, including US\$3.78m for International Health Regulations (IHR) capacity building funding. The tracker notes that Seychelles has received funding from multiple donors to enhance its capacity on global health security preparedness, including, for example, World Health Organization funding to facilitate the intensification of implementation and monitoring of measles and rubella elimination strategies. [1] However, there is no further public evidence of Seychelles' investment of these funds from government sources. No relevant information is shared via the public websites of the Ministry of Health, Ministry of Fisheries and Agriculture, or the Ministry of Foreign Affairs and Tourism. [2,3,4] There is no relevant information shared in the Ministry of Health's 2019 annual report or the Seychelles National Health Strategic Plan 2016-2020. [5,6]

[1] Global Health Security Funding Tracker. [<https://tracking.ghscosting.org/#/data>]. Accessed 28 December 2020.

[2] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[3] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 4 January 2021.

[4] Ministry of Foreign Affairs and Tourism. [<http://tourism.gov.sc/>]. Accessed 4 January 2021.

[5] Ministry of Health. "Health of Our Nation: Health Sector Performance Report 2019". 2020. [http://www.health.gov.sc/wp-content/uploads/Annual-Health-Sector-Performance-Report-2019_FULL-REPORT.pdf]. Accessed 28 December 2020.

[6] Ministry of Health. November 2016. "Seychelles National Health Strategic Plan 2016-2020".

[<http://www.health.gov.sc/wp-content/uploads/SEYCHELLES-NATIONAL-HEALTH-STRATEGIC-PLAN.pdf>]. Accessed 28 December 2020.

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 that Seychelles has a publicly available plan or policy for sharing genetic data, epidemiological data, clinical specimens, or isolated specimens (biological materials) with international organizations or other countries that goes beyond influenza. There is no relevant information shared via the public websites of the Ministry of Health or Ministry of

Fisheries and Agriculture. [1,2] The Department of Risk and Disaster Management does not have a public website. There is no relevant information in the Joint External Evaluation report (JEE) for Seychelles, published in 2018. [3] There is no evidence of relevant media reports or academic studies.

[1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021.

[2] Ministry of Fisheries and Agriculture. [<http://mofa.gov.sc/>]. Accessed 4 January 2021.

[3] World Health Organization (WHO). "Joint External Evaluation of IHR Core Capacities of the Republic of Seychelles". 2018. [<https://apps.who.int/iris/bitstream/handle/10665/274354/WHO-WHE-CPI-REP-2018.21-eng.pdf>]. Accessed 28 December 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 public evidence that Seychelles has not shared samples in accordance with the PIP framework in the past two years. The latest External Evaluation of the Pandemic Influenza Preparedness Partnership Contribution, published in 2016, does not refer to Seychelles not sharing samples, nor does it list Seychelles as a priority country for improving the "national ability to detect, monitor and share novel influenza viruses". [1] There is no relevant information shared via the WHO Seychelles country profile; or the WHO Regional Office for Africa website. [2,3] There have not been any reports of Seychelles not sharing samples in either national and international media.

[1] World Health Organisation (WHO). 2016. "External Evaluation of the Pandemic Influenza Preparedness Partnership Contribution—High-Level Implementation Plan 2013-2016".

[http://www.who.int/about/evaluation/pip_evaluation_report.pdf]. Accessed 2 November 2020.

[2] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.

[3] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 28 December 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 public evidence that Seychelles has not shared pandemic pathogen samples during an outbreak in the past two years. There is no reference to sharing pandemic pathogen data on the Ministry of Health website, and there have not been any reports of Seychelles not sharing samples in either national and international media. [1] Likewise, there is no relevant information shared via the World Health Organization (WHO) International Health Regulations Strategic Partnership Portal; in the WHO Seychelles country profile; in the WHO Regional Office for Africa website; or on Seychelles government websites describing the country's response to the COVID-19 pandemic. [2,3,4,5,6,7] There is no relevant information shared via the World Health Organization (WHO) Disease Outbreak News website. [8]

- [1] Ministry of Health. [<http://www.health.gov.sc/>]. Accessed 4 January 2021
- [2] World Health Organization (WHO). "International Health Regulations Strategic Partnership Portal". [<https://extranet.who.int/sph/>]. Accessed 11 December 2020.
- [3] World Health Organization (WHO). "Seychelles". [<https://www.afro.who.int/countries/seychelles>]. Accessed 28 December 2020.
- [4] World Health Organization (WHO). "Regional Office for Africa". [<https://www.afro.who.int/>]. Accessed 28 December 2020.
- [5] Ministry of Foreign Affairs and Tourism. 7 May 2020. "Covid-19 (Coronavirus Disease) Public Health (Infectious Disease) Regulations Orders". [http://www.mfa.gov.sc/static.php?content_id=36&news_id=2052]. Accessed 4 January 2021.
- [6] Office of the President of the Republic of Seychelles. 20 March 2020. "Address by President Danny Faure on Measures to Address the COVID-19 Situation". [<http://www.statehouse.gov.sc/news/4777/address-by-president-danny-faure-on-measures-to-address-the-covid-19-situation>]. Accessed 4 January 2021.
- [7] Ministry of Health. "COVID-19: Guidelines". [<http://www.health.gov.sc/index.php/covid-19/guidelines/>]. Accessed 4 January 2021.
- [8] World Health Organization (WHO). "Disease Outbreak News: Seychelles". [<https://www.who.int/csr/don/archive/country/en/>]. Accessed 4 January 2021.

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: 3

2020

Economist Intelligence

6.1.1b

Quality of bureaucracy (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1c

Excessive bureaucracy/red tape (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1d

Vested interests/cronyism (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1e

Country score on Corruption Perception Index (0-100, where 100=best)

Input number

Current Year Score: 66

2020

Transparency International

6.1.1f

Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1g

Human rights risk (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 3

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: 3

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: 2

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: 3

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: 3

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: 95.87

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: 0.67

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: 0.5

2013

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

According to the World Bank, the share of employment in the informal sector in Seychelles was 14% in 2019, the most recent year for which data is available. [1] The International Labour Organization's ILOSTAT database does not provide a figure for Seychelles. [2]

[1] World Bank. "Informal employment (% of non-agricultural employment: Seychelles)—Seychelles".

[<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS>]. Accessed 4 January 2021.

[2] International Labour Organization. "Country Profiles". ILOSTAT. [<https://ilostat.ilo.org/data/country-profiles/>]. Accessed 4 January 2021.

6.2.3c

Coverage of social insurance programs (% of population)

Scored in quartiles (0-3, where 3=best)

Current Year Score: 0

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: 0.32

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: 3

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: 3

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 57.12

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: 0

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: 72.84

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: 569.9

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 7.81

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 21.1

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 14

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: 96.25

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: 1153.52

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