

Bahamas

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

There is insufficient evidence of a publicly available national AMR plan for the surveillance, detection and reporting of priority AMR pathogens for the Bahamas. There is no national action plan available through the World Health Organization library of National Action Plans, the Ministry of Health, or the Ministry of Agriculture. [1, 2, 3] The Ministry for Health and Ministry of Agriculture gives no indication that development of a plan is underway. [2, 3] The 2018-2019 Antimicrobial Resistance Country Self Assessment for the Bahamas indicates that there is a national AMR action plan under development, and also indicates that there is no national plan or system for monitoring use of antimicrobials. [4] A World Health Organization (WHO) AMR newsletter from 2017 describes "a second" national action plan (NAP) workshop for three Caribbean countries held in the Bahamas in February 2017, indicating that the Bahamas left the workshop with a "nearly complete draft NAP" and clear next steps for the plan. [5] Additionally, an undated article from Pan American Health Organization (PAHO)/WHO that describes a regional training on AMR that occurred in the month of June mentions the Bahamas among the Caribbean countries that have completed a national action plan on AMR. [6] Although the article is undated, it states that the training was held at the recently opened Best-dos Santos Public Health Laboratory in Barbados, which opened in January 2018. [6, 7] In December 2014, the Caribbean Public Health Agency (CARPHA) of which the Bahamas is a member states jointly hosted, with Public Health England, a workshop on Combatting Antimicrobial Resistance in the Caribbean. [8]

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

[<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en>]. Accessed 14 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 14 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 14 August 2020.

[4] World Health Organization. "Global Database for Antimicrobial Resistance Country Self Assessment 2017-2018 - Bahamas". [<http://amrcountryprogress.org/>]. Accessed 14 August 2020.

[5] World Health Organization. March 2017, WHO GAP AMR Newsletter No.24. "Implementation of the Global Action Plan on Antimicrobial Resistance". [<https://www.who.int/antimicrobial-resistance/news/who-gap-amr-newsletter-march-2017.pdf?ua=1>]. Accessed 14 August 2020.

[6] Pan American Health Organization (PAHO), Barbados and the Eastern Caribbean Countries. ND. "Anti-microbial Resistance Surveillance strengthened in the Caribbean".

[https://www.paho.org/ecc/index.php?option=com_content&view=article&id=637:anti-microbial-resistance-surveillance-strengthened-in-the-caribbean&Itemid=332]. Accessed 14 August 2020.

[7] Barbados Government Information Service. 8 January 2018. "New Public Health Lab Officially Opened".

[<https://gisbarbados.gov.bb/blog/new-public-health-lab-officially-opened/>]. Accessed 14 August 2020.

[8] Caribbean Public Health Agency (CARPHA). "CARPHA and Public Health England Tackle the Threat of Antimicrobial Drug

Resistance in the Region". [<https://carpha.org/More/Media/Articles/ArticleID/86/CARPHA-and-Public-Health-England-Tackle-the-Threat-of-Antimicrobial-Drug-Resistance-in-the-Region>]. Accessed 14 August 2020.

1.1.1b

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

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

Current Year Score: 0

There is no evidence of a national laboratory/laboratory system, which tests for priority AMR pathogens. However, the Bahamas can test for some AMR pathogens through the Caribbean Public Health Agency (CARPHA). The CARPHA Laboratory User Manual includes testing capabilities for the following five pathogens in its list of testing services: E. coli; S. pneumoniae; Salmonellosis; Shigellosis; Tuberculosis. [1] The testing services list specifically indicates testing capabilities for drug-resistant forms of one of the priority pathogens, Tuberculosis (drug sensitivity testing (PCR)). [1] CARPHA member states, including the Bahamas, can submit specimens to the CARPHA laboratory by way of the relevant national public health laboratories. [1] Public analyst laboratories are among the responsibilities of the Ministry of Health, but there is no evidence of laboratory sites within the Bahamas that test for priority AMR pathogens through the Ministry of Health or Ministry of Agriculture. [2, 3, 4] The Ministry of Health's Epidemiology and Surveillance Unit "is responsible for investigation, prevention and control of communicable diseases," but there is no evidence of these entities testing for priority AMR pathogens. [5] There is no national action plan (NAP) available through the World Health Organization library of National Action Plans, however, the Pan American Health Organization has mentioned that Bahamas has completed a NAP. [6, 7] A March 2020 post from the Bahamas Information Services indicates that there is a National Reference Laboratory (NRL) has the capacity to test for COVID-19. [8] However, no further information is available about the testing capacity of the NRL, including testing for AMR pathogens, through the Ministry of Health or Ministry of Agriculture. [2, 3]

[1] Caribbean Public Health Agency (CARPHA). January 2020. "Laboratory Procedure Manual".

[[https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual\[1452\].pdf?ver=2020-04-16-180718-920](https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual[1452].pdf?ver=2020-04-16-180718-920)]. Accessed 14 August 2020.

[2] Government of the Bahamas. "Government Departments - Ministry of Health". [<https://bit.ly/2nQ6HWa>]. Accessed 14 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 14 August 2020.

[4] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 14 August 2020.

[5] Ministry of Health of the Bahamas. "Epidemiology and Surveillance". [<https://bit.ly/2InlZQV>]. Accessed 14 August 2020.

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

[<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en>]. Accessed 14 August 2020.

[7] Pan American Health Organization (PAHO), Barbados and the Eastern Caribbean Countries. ND. "Anti-microbial Resistance Surveillance strengthened in the Caribbean".

[https://www.paho.org/ecc/index.php?option=com_content&view=article&id=637:anti-microbial-resistance-surveillance-strengthened-in-the-caribbean&Itemid=332]. Accessed 14 August 2020.

[8] Bahamas Information Services of the Government of the Bahamas. 3 March 2020. "Featured Story - Lab with capacity to test for COVID-19 established in New Providence". [<https://bit.ly/31ZGzNI>]. Accessed 14 August 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the government of the Bahamas conducts detection or surveillance activities for antimicrobial residues or AMR organisms. In the 2018-19 Antimicrobial Resistance Country Self Assessment, the Bahamas indicates that "no national plan for a system of surveillance of AMR", regarding a national surveillance for AMR in food (animal and plant origin). [1] There is no national action plan (NAP) available through the World Health Organization library of National Action Plans, however, the Pan American Health Organization has mentioned that Bahamas has completed a NAP. [2, 3] There is no evidence of AMR detection or surveillance activities through the Ministry of Health, or the Ministry of Agriculture, or the Environmental Management Authority. [4, 5, 6]

[1] World Health Organization. "Global Database for Antimicrobial Resistance Country Self Assessment 2017-2018 - Bahamas (the)". [<http://amrcountryprogress.org/>]. Accessed 14 August 2020.

[2] World Health Organization. "Antimicrobial resistance - Library of national action plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en>]. Accessed 14 August 2020.

[3] Pan American Health Organization (PAHO), Barbados and the Eastern Caribbean Countries. ND. "Anti-microbial Resistance Surveillance strengthened in the Caribbean".

[https://www.paho.org/ecc/index.php?option=com_content&view=article&id=637:anti-microbial-resistance-surveillance-strengthened-in-the-caribbean&Itemid=332]. Accessed 14 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 14 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 14 August 2020.

[6] Ministry of Environment and Housing of the Bahamas. [<https://eh.gov.bs/>]. Accessed 14 August 2020.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 2

The Bahamas has national legislation in place requiring prescriptions for antibiotic use for humans. The Penicillin Act of 1948, updated in 1987, applies to penicillin and "such other anti-microbial organic substances produced by living organisms" and states that these substances require a prescription from a medical practitioner or dentist. [1] The Pharmacy Act of 2009 and the Pharmacy (Prescription) Regulations covers processes for dispensing prescription drugs, but does not specifically mention antibiotics. [2, 3] In addition, antibiotics are listed as a prescribed substance/drug under chiropody/podiatriy in the Health Professions Regulations of 2000. [4] There is no evidence of gaps in enforcement.

[1] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 1948, No. 5 of 1987 "The Penicillin Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/1948/1948-0007/PenicillinAct_1.pdf]. Accessed 14 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. No. 8 of 2009. "The Pharmacy Act, 2009". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2009/2009-0008/PharmacyAct2009_1.pdf]. Accessed 14 August 2020.

[3] Government of the Bahamas - Statute Law of the Bahamas. S.I. No. 5 of 2010. "Pharmacy (Prescription) Regulations, 2010". [<http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2010/2010->

0005/PharmacyPrescriptionRegulations2010_1.pdf]. Accessed 14 August 2020.

[4] Government of the Bahamas - Statute Law of the Bahamas. Statutory Instrument (S.I.) 78/2000, S.I. 101/2001 - Ch. 233. "Health Professions (General) Regulations".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2000/2000-0078/HealthProfessionsGeneralRegulations2000_1.pdf]. Accessed 14 August 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 insufficient evidence that the Bahamas has national legislation or regulation in place requiring prescriptions for antibiotic use for animals. The Animal Health and Production Act of 2016 states that the Director of Veterinary Services regulates the use of "veterinary biological products", which includes antibiotics. [1] The Animal Health Regulations of 2017 do not mention antibiotic prescribing. [2] There is no further information available on regulations that cover requirements for antibiotic prescriptions for animals available through the Ministry of Agriculture, Ministry of Health, or Bahamas National Anti-Drug Secretariat, which includes the National Drug Agency. [3, 4, 5] The Penicillin Act of 1948, updated in 1987, applies to penicillin and "such other anti-microbial organic substances produced by living organisms" and states that these substances require a prescription from a medical practitioner or dentist, however, there is no mention of veterinary professionals or prescriptions for use for animals. [6] The Pharmacy Act of 2009 and the Pharmacy (Prescription) Regulations covers processes for dispensing prescription drugs, but does not specifically mention antibiotics. [7, 8] There is no national action plan (NAP) available through the World Health Organization library of National Action Plans. [9] There is no evidence of an enforcement agency or gaps of enforcement.

[1] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 14 August 2020.

[2] Government of the Bahamas. 2017. "Animal Health Regulations, 2017". [<https://www.bahamas.gov.bs/wps/wcm/connect/a000f9a5-7038-4b46-9aa2-ae0ff4421a7/Animal+Health+Regulation+%282017%29.pdf?MOD=AJPERES>]. Accessed 14 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 14 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 14 August 2020.

[5] Bahamas National Anti-Drug Secretariat. [<https://bit.ly/3iOsTMx>]. Accessed 14 August 2020.

[6] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 1948, No. 5 of 1987. "The Penicillin Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/1948/1948-0007/PenicillinAct_1.pdf]. Accessed 14 August 2020.

[7] Government of the Bahamas - Statute Law of the Bahamas. No. 8 of 2009. "The Pharmacy Act, 2009". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2009/2009-0008/PharmacyAct2009_1.pdf]. Accessed 14 August 2020.

[8] Government of the Bahamas - Statute Law of the Bahamas. S.I. No. 5 of 2010. "Pharmacy (Prescription) Regulations, 2010". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2010/2010-0005/PharmacyPrescriptionRegulations2010_1.pdf]. Accessed 14 August 2020.

[9] World Health Organization. "Antimicrobial resistance - Library of national action plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en>]. Accessed 14 August 2020.

1.2 ZOOONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Bahamas has a national law, plan, or equivalent strategy document, on zoonotic disease. There is no indication of such a plan through the Ministry of Health, Ministry of Agriculture, or the country's Legislative Library. [1, 2, 3] The Animal Health Regulations of 2017 describe notifiable diseases to include those that pose "a risk to public health due to its zoonotic character", but there is no further detail on a zoonotic disease strategy, and the Animal Health and Production Act of 2016 broadly covers animal diseases, including diseases which happen to be zoonotic diseases. [4, 5] A 2017 publication in PLOS ONE, a multidisciplinary peer-reviewed journal, describes a survey that was conducted of zoonoses programs in the Caribbean, which included the Bahamas. [6] However, the article does not provided detail of country-level responses. There is evidence that the country is party to planning and strategy regarding zoonotic disease as a Member State of the Caribbean Community (CARICOM). In 2012, CARICOM members signed an agreement with the World Organisation for Animal Health (OIE) "to prevent the spread of animal diseases, to improve the animal health", and to "harmonize legislation and regulations on animal diseases and zoonoses". [7] The Bahamas participates in the Caribbean Animal Health Network (CaribVET), which aims to improve animal and veterinary public health in all the countries and/or the territories of the Caribbean, including strengthening national capacities related to preparedness, surveillance, monitoring and management of animal and zoonotic disease. [8] In addition, the Pan American Health Organization division of the World Health Organization describes the Veterinary Public Health program at the Office of Caribbean Program Coordination to include prevention and control of zoonoses as an "area of concern". [9]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 15 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 15 August 2020.

[3] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [http://laws.bahamas.gov.bs/cms/en/]. Accessed 15 August 2020.

[4] Government of the Bahamas. 2017. "Animal Health Regulations, 2017". [https://www.bahamas.gov.bs/wps/wcm/connect/a000f9a5-7038-4b46-9aa2-ae0ff4421a7/Animal+Health+Regulation+%282017%29.pdf?MOD=AJPERES]. Accessed 15 August 2020.

[5] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.

[6] Maxwell, M. J., et al. 2017. "Building the road to a regional zoonoses strategy: A survey of zoonoses programmes in the Americas". PLOS ONE 12

[3], e0174175. [https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0174175]. Accessed 15 August 2020.

[7] The World Organisation for Animal Health (OIE). 2012. "Agreement Between the Caribbean Community (CARICOM) and the World Organisation for Animal Health (OIE)".

[http://www.oie.int/fileadmin/Home/eng/About_us/docs/pdf/accords/CARICOM_ANG.pdf]. Accessed 15 August 2020.

[8] Caribbean Animal Health Network (CaribVET). "Network Objectives". [https://www.caribvet.net/about-the-network/objectives]. Accessed 15 August 2020..

[9] Pan American Health Organization/World Health Organization (PAHO/WHO), Caribbean Subregional Program

Coordination. "Veterinary Public Health". [https://www.paho.org/spc-crb/index.php?option=com_content&view=article&id=391:veterinary-public-health&Itemid=0]. Accessed 15 August 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 insufficient evidence that the Bahamas has a national law, plan, or equivalent strategy document which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. There is no indication of such a plan through the Ministry of Health or Ministry of Agriculture. [1, 2] The Animal Health and Production Act of 2016 describes measures for risk identification and reduction of animal diseases broadly but does not specifically describe measures for zoonotic disease spillover events. [3] The 2017 Animal Health Regulations states that zoonotic diseases shall be listed as notifiable, however, there is no specific strategy to that includes measures for risk identification and reduction. [4] In 2012, the Caribbean Community (CARICOM), of which the Bahamas is a Member State, signed an agreement with the World Organisation for Animal Health (OIE) "to prevent the spread of animal diseases, to improve the animal health", and to "harmonize legislation and regulations on animal diseases and zoonoses". [5] The Bahamas participates in the Caribbean Animal Health Network (CaribVET), which aims to improve animal and veterinary public health in all the countries and/or the territories of the Caribbean, including strengthening national capacities related to preparedness, surveillance, monitoring and management of animal and zoonotic disease. [6] In addition, the "neglected, tropical and zoonotic disease" is among the programme areas of the Pan American Health Organization division of the World Health Organization Subregional Cooperation Strategy for 2016-2019. [7]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 15 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 15 August 2020.

[3] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.

[4] Government of the Bahamas. 2017. "Animal Health Regulations, 2017".

[<https://www.bahamas.gov.bs/wps/wcm/connect/a000f9a5-7038-4b46-9aa2-ae0ff4421a7/Animal+Health+Regulation+%282017%29.pdf?MOD=AJPERES>]. Accessed 15 August 2020.

[5] The World Organisation for Animal Health (OIE). 2012. "Agreement Between the Caribbean Community (CARICOM) and the World Organisation for Animal Health (OIE)".

[http://www.oie.int/fileadmin/Home/eng/About_us/docs/pdf/accords/CARICOM_ANG.pdf]. Accessed 15 August 2020.

[6] Caribbean Animal Health Network (CaribVET). "Network Objectives". [<https://www.caribvet.net/about-the-network/objectives>]. Accessed 15 August 2020.

[7] Pan American Health Organization/World Health Organization (PAHO/WHO). "Working for Health in the Caribbean: PAHO/WHO Subregional Cooperation Strategy, 2016-2019".

[<https://www.paho.org/en/file/64750/download?token=BU5TU0gL>]. Accessed 15 August 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 insufficient evidence of a national plan, guidelines, or law that accounts for the surveillance and control of multiple zoonotic pathogens of public health concern in the Bahamas. There is no evidence of such a document provided by the Ministry of Health, Ministry of Agriculture, or through the country's Legislative Library. [1, 2, 3] The Animal Health and Production Act of 2016 broadly covers control of animal diseases, including diseases which happen to be zoonotic diseases. [4] The Annual Report of the Chief Medical Officer for 2001-2003, published in 2005, indicates that there is weak government veterinary capacity and under reporting from veterinary clinics and private labs regarding zoonotic diseases. [5] The Caribbean Community (CARICOM) One Health policy urges collaboration between the public health, agriculture and wildlife/environment sectors, including for joint surveillance and information sharing, joint outbreak investigation, and joint emergency planning and response to emerging issues such as outbreaks of zoonotic or food borne diseases. [6] The CARICOM One Health policy was ratified by the Ministers of Agriculture at the Council for Trade and Economic Development in 2013 and CARICOM One Health has a six-year strategic framework (2017-2022) in place. [6] In addition, one of the coordinated actions of the Caribbean Animal Health Network (CaribVET) is epidemiological surveillance, but CaribVET does not have publicly available plans or guidelines on surveillance and control of zoonotic pathogens. [7]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 15 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 15 August 2020.

[3] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [<http://laws.bahamas.gov.bs/cms/en/>]. Accessed 15 August 2020.

[4] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.

[5] Ministry of Health of the Bahamas. April 2005. "Annual Report of the Chief Medical Officer, 2001-2003". [<https://www.bahamas.gov.bs/wps/wcm/connect/94980881-35b1-4df9-81c4-eb8eba67c81b/Chief+Medical+Officer%27s+Report%2C+2001-2003.pdf?MOD=AJPERES>]. Accessed 15 August 2020.

[6] Pan American Health Organization. "One Health: From Ideas to Action". [https://www.paho.org/trt/images/stories/PWR_TRT/one%20health%20workshop%20report.pdf?ua=1&ua=1]. Accessed 15 August 2020.

[7] Caribbean Animal Health Network (CaribVET). "About the Network". [<https://www.caribvet.net/about-the-network>]. Accessed 15 August 2020.

1.2.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a department, agency or similar unit dedicated to zoonotic disease that functions across ministries in the Bahamas. The Animal Health and Production Act of 2016 describes the establishment of an Animal Health Advisory Committee, including representatives from the Department that deals with public health and Department of Environmental Health. [1] However, there is no evidence that such as committee has been formed, including through the Ministry of Agriculture and Ministry of Health, and there is no indication that Veterinary Services functions across ministries regarding zoonotic disease. [2, 3] According to a report from the Food and Agriculture Organization (FAO) titled "Report on Rapid Assessment of the Agriculture Sector by the FAO" and posted on the Government of the Bahamas website "the

responsibilities of the Veterinary Services section of the Department of Agriculture include zoonosis and disease surveillance. [4] Although the report is undated, it was published no earlier than 2009, since the executive summary refers to activities in 2009. [4]

[1] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 15 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 15 August 2020.

[4] Food and Agriculture Organization of the United Nations. ND. "Report on Rapid Assessment of the Agriculture Sector by the FAO". [https://www.bahamas.gov.bs/wps/wcm/connect/27b04e0e-44fc-4a1b-a55b-76e578db713e/Rapid+Assessment+of+the+Agricultural+Sector.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=27b04e0e-44fc-4a1b-a55b-76e578db713e]. Accessed 15 August 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: 1

There is evidence that the Bahamas has a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency. The Animal Health Regulations of 2017 state that notifiable diseases—which include diseases that pose "a risk to public health due to its zoonotic character"—must be reported by animal owners (or other authorized individuals) within 24 hours, in person or by telephone to the Director of Veterinary Services. [1] The Regulations carve out provisions of the Animal Production and Health Act of 2016, which states that training livestock owners and other relevant individuals/entities to detect and report diseases and hazards are a component of an early detection system for the country. [2] The Act also states that the Director of Veterinary Services must maintain an updated list of notifiable diseases based on the OIE list and/or diseases of national concern. [2] The 2010 charter for Caribbean Animal Health Network (CaribVET), of which the Bahamas is a member, states that one of the roles of the Veterinary epidemiologist / para-epidemiologist (VEP) project is to establish an early detection and rapid response system in the Caribbean region, including surveillance systems for priority / emerging diseases, and to develop and reinforce national surveillance systems. [3] There is no further information by CaribVET specific to the Bahamas. [4]

[1] Government of the Bahamas. 2017. "Animal Health Regulations, 2017". [<https://www.bahamas.gov.bs/wps/wcm/connect/a000f9a5-7038-4b46-9aa2-ae0ff4421a7/Animal+Health+Regulation+%282017%29.pdf?MOD=AJPERES>]. Accessed 15 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.

[3] Caribbean Animal Health Network (CaribVET). "Caribbean Animal Health Network Charter". [https://www.caribvet.net/content/download/4499/33474/version/1/file/CaribVET_CHARTER_FINAL_EN2011%28detailed%29.pdf]. Accessed 15 August 2020.

[4] Caribbean Animal Health Network (CaribVET). [<https://www.caribvet.net/>]. Accessed 15 August 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: 1

There is evidence that there are laws and guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners) in the Bahamas. The Animal Production and Health Act of 2016 has a section on Confidentiality stating that information acquired by functions performed under the Act is confidential, and only the Director of Veterinary Services (Director) or a court may determine disclosure of any information. [1] This confidentiality provision therefore applies to portions of the Act on training livestock owners and other relevant individuals/entities to detect and report diseases and hazards, and the requirement that the Director maintain an updated list of notifiable diseases based on the OIE list and/or diseases of national concern. [1] In addition, the regulations that carve out provisions of the Act—the Animal Health Regulations of 2017—state that notifiable diseases must be reported by animal owners (or other authorized individuals) within 24 hours, in person or by telephone to the Director of Veterinary Services. [2] There is no additional information about confidentiality of information generated through surveillance activities for animals through the Ministry of Agriculture or Ministry of Health. [3, 4]

[1] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.

[2] Government of the Bahamas. 2017. "Animal Health Regulations, 2017". [<https://www.bahamas.gov.bs/wps/wcm/connect/a000f9a5-7038-4b46-9aa2-ae0ff4421a7/Animal+Health+Regulation+%282017%29.pdf?MOD=AJPERES>]. Accessed 15 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 15 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 15 August 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 that the Bahamas conducts surveillance of zoonotic disease in wildlife. The Ministry of Health indicates that its Department of Public Health is responsible for Vector Control. [1] An April 2017 press release from the Ministry of Health, providing a Zika update, states that there is an active surveillance programme in partnership with the Department of Environmental Health's vector control and mosquito management, but it does not specify that this surveillance is in wildlife, and there is no specific mention of surveillance of zoonotic disease in wildlife from the Ministry of Health. [2, 3] The Bahamas Information Services reported, in February 2018, that the Department of Environmental Health hosted a five-day seminar on an integrated vector (mosquito) control programme that featured field surveillance, including site selection and establishment, as one of the three major topics covered. [4] There is no evidence from the Ministry of Agriculture of that surveillance of zoonotic disease is wildlife. [5] The Bahamas is part of the Caribbean Public Health Agency (CARPHA), which conducts surveillance on vector-borne diseases. [6, 7] In 2017, CARPHA launched the regional Caribbean

Vector-Borne Diseases Network (CariVecNet), which acts as an exchange center for surveillance information on vector-borne diseases. [8, 9] However, there is no representative from the Bahamas listed as part of the CariVectNet Surveillance/Epidemiology Working Group. [10]

- [1] Government of the Bahamas. "Government Departments - Ministry of Health". [<https://bit.ly/2nQ6HWa>]. Accessed 16 August 2020.
- [2] Ministry of Health of the Bahamas. 10 April 2017. "Press Release - Zika Update (April 10, 2017)". [<https://bit.ly/2Ns7kTD>]. Accessed 16 August 2020.
- [3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 16 August 2020.
- [4] Bahamas Information Services of the Government of the Bahamas. 20 February 2018. "Featured Story - Environmental Health Hosted Expert Mission Towards Mosquito Control". [<https://bit.ly/2EnAnVq>]. Accessed 16 August 2020.
- [5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 16 August 2020.
- [6] Caribbean Public Health Agency (CARPHA). "Services and Resources". [<https://carpha.org/Orientation-Home/Service-Resources>]. Accessed 16 August 2020.
- [7] Caribbean Public Health Agency (CARPHA). "Departments in CARPHA". [<https://carpha.org/Orientation-Home/Departments>]. Accessed 16 August 2020.
- [8] Caribbean Public Health Agency (CARPHA). 22 August 2017. "Regional Network Launched to Collaborate on Zika and Other Vector-Borne Diseases". [<https://carpha.org/More/Media/Articles/ArticleID/194/Regional-Network-Launched-to-Collaborate-on-Zika-and-Other-Vector-Borne-Diseases>]. Accessed 16 August 2020.
- [9] Caribbean Vector-Borne Diseases Network (CariVecNet). [<http://carivecnet.carpha.org/>]. Accessed 31 July 2020.
- [10] Caribbean Vector-Borne Diseases Network (CariVecNet). "CariVectNet Surveillance/Epidemiology Working Group Members". [<http://carivecnet.carpha.org/Surveillance-Epidemiology>]. Accessed 16 August 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: 33.38

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: -

No data available

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the Bahamas has a national law, plan, or equivalent strategy document, on zoonotic disease and therefore no evidence of private sector involvement. There is no indication of such a plan through the Ministry of Health, Ministry of Agriculture, or the country's Legislative Library. [1, 2, 3] The Animal Health Regulations of 2017 describe notifiable diseases to include those that pose "a risk to public health due to its zoonotic character", but there is no further detail on a zoonotic disease strategy, and the Animal Health and Production Act of 2016 broadly covers animal diseases, including diseases which happen to be zoonotic diseases. [4, 5] A 2017 publication in PLOS ONE, a multidisciplinary peer-reviewed journal, describes a survey that was conducted of zoonoses programs in the Caribbean, which included the Bahamas. [6] However, the article does not provided detail of country-level responses. There is evidence that the country is party to planning and strategy regarding zoonotic disease as a Member State of the Caribbean Community (CARICOM). In 2012, CARICOM members signed an agreement with the World Organisation for Animal Health (OIE) "to prevent the spread of animal diseases, to improve the animal health", and to "harmonize legislation and regulations on animal diseases and zoonoses". [7] The Bahamas participates in the Caribbean Animal Health Network (CaribVET), which aims to improve animal and veterinary public health in all the countries and/or the territories of the Caribbean, including strengthening national capacities related to preparedness, surveillance, monitoring and management of animal and zoonotic disease. [8] In addition, the Pan American Health Organization division of the World Health Organization describes the Veterinary Public Health program at the Office of Caribbean Program Coordination to include prevention and control of zoonoses as an "area of concern". [9]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 15 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 15 August 2020.

[3] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [http://laws.bahamas.gov.bs/cms/en/]. Accessed 15 August 2020.

[4] Government of the Bahamas. 2017. "Animal Health Regulations, 2017".

[https://www.bahamas.gov.bs/wps/wcm/connect/a000f9a5-7038-4b46-9aa2-ae0ff4421a7/Animal+Health+Regulation+%282017%29.pdf?MOD=AJPERES]. Accessed 15 August 2020.

- [5] Government of the Bahamas - Statute Law of the Bahamas. No. 7 of 2016. "Animal Health and Production Act, 2016". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2016/2016-0007/AnimalHealthandProductionAct2016_1.pdf]. Accessed 15 August 2020.
- [6] Maxwell, M. J., et al. 2017. "Building the road to a regional zoonoses strategy: A survey of zoonoses programmes in the Americas". PLOS ONE 12 [3], e0174175. [<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0174175>]. Accessed 15 August 2020.
- [7] The World Organisation for Animal Health (OIE). 2012. "Agreement Between the Caribbean Community (CARICOM) and the World Organisation for Animal Health (OIE)". [http://www.oie.int/fileadmin/Home/eng/About_us/docs/pdf/accords/CARICOM_ANG.pdf]. Accessed 15 August 2020.
- [8] Caribbean Animal Health Network (CaribVET). "Network Objectives". [<https://www.caribvet.net/about-the-network/objectives>]. Accessed 15 August 2020..
- [9] Pan American Health Organization/World Health Organization (PAHO/WHO), Caribbean Subregional Program Coordination. "Veterinary Public Health". [https://www.paho.org/spc-crb/index.php?option=com_content&view=article&id=391:veterinary-public-health&Itemid=0]. Accessed 15 August 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 the Bahamas 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. The Ministry of Health, Ministry of Agriculture, Ministry National Security, and Royal Bahamas Defence Force offer no such evidence. [1, 2, 3, 4] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [5] There is no relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [6]

- [1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 16 August 2020.
- [2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 16 August 2020.
- [3] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 16 August 2020.
- [4] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 16 August 2020.
- [5] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 16 August 2020.
- [6] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 16 August 2020.

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Bahamas has in place legislation related to biosecurity which address requirements such as physical containment, operation practices, and cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed. The Notifiable Diseases section of the Health Service Rules of 2001 states that laboratory tests should be conducted for the diagnosis of notifiable diseases, but there is no mention of biosecurity measures pertaining to these cultures and specimens. [1] There is no mention of issues relating to biosecurity in the Anti-Terrorism Act of 2004, or the amendments to the Act in 2014 and 2015. [2, 3, 4] There is a draft biosecurity strategy document from 2010—available through the Bahamas Environment, Science & Technology Commission (BEST) and the Caribbean Invasive Alien Species Network (CIASNET)—but this is regarding Living Modified Organisms (LMOs). [5, 6, 7] There is no other relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [8] No evidence of such legislation or regulations is available from the Ministry of Health, Ministry of Agriculture, Ministry of National Security, or Royal Bahamas Defence Force. [9, 10, 11, 12] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [13]

[1] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 17 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. Chapter 107 of 2004. "Anti-Terrorism Act". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Anti-Terrorism_Act_2004.pdf]. Accessed 17 August 2020.

[3] Government of the Bahamas - Statute Law of the Bahamas. No. 1 of 2014. "Anti-Terrorism (Amendment) Act, 2014". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Anti-Terrorism%20Amendment%20Act%202014.pdf]. Accessed 17 August 2020.

[4] Government of the Bahamas - Statute Law of the Bahamas. No. 45 of 2015. "Anti-Terrorism (Amendment) Act, 2015". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Anti-Terrorism%20Amendment%20Act%202015.pdf]. Accessed 17 August 2020.

[5] The Bahamas Environment, Science & Technology Commission (BEST). "Publications". [<http://www.best.gov.bs/publications/>]. Accessed 17 August 2020.

[6] Caribbean Invasive Alien Species Network (CIASNET). 12 August 2010. "Bahamas Biosecurity Strategy". [<http://www.ciasnet.org/2010/08/12/bahamas-biosecurity-strategy/>]. Accessed 17 August 2020.

[7] The Commonwealth of the Bahamas. ND. "Draft National Biosecurity Strategy (NBS)". [http://www.best.gov.bs/Documents/Bahamas_Biosecurity_Strategy.pdf]. Accessed 17 August 2020.

[8] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 17 August 2020.

[9] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 17 August 2020.

[10] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 17 August 2020.

[11] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 17 August 2020.

[12] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 17 August 2020.

[13] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 17 August 2020.

1.3.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is an established agency responsible for the enforcement of biosecurity legislation and regulations in the Bahamas, as there is no evidence that such legislation or regulations exist. The Health Service Rules of 2001 and the Anti-Terrorism Act of 2004 do not cover biosecurity. [1, 2] There is a draft biosecurity strategy document from 2010—available through the Bahamas Environment, Science & Technology Commission (BEST) and the Caribbean Invasive Alien Species Network (CIASNET)—but this is regarding Living Modified Organisms (LMOs). [3, 4, 5] There is no other relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [6] No evidence of such legislation or regulations is available from the Ministry of Health, Ministry of Agriculture, Ministry of National Security, or Royal Bahamas Defence Force. [7, 8, 9, 10] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [11]

[1] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 17 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. Chapter 107 of 2004. "Anti-Terrorism Act". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Anti-Terrorism_Act_2004.pdf]. Accessed 17 August 2020.

[3] The Bahamas Environment, Science & Technology Commission (BEST). "Publications". [<http://www.best.gov.bs/publications/>]. Accessed 17 August 2020.

[4] Caribbean Invasive Alien Species Network (CIASNET). 12 August 2010. "Bahamas Biosecurity Strategy". [<http://www.ciasnet.org/2010/08/12/bahamas-biosecurity-strategy/>]. Accessed 17 August 2020.

[5] The Commonwealth of the Bahamas. ND. "Draft National Biosecurity Strategy (NBS)". [http://www.best.gov.bs/Documents/Bahamas_Biosecurity_Strategy.pdf]. Accessed 17 August 2020.

[6] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/biological-weapons-and-materials/bwc-legislation-database/b.php>]. Accessed 17 August 2020.

[7] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 17 August 2020.

[8] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 17 August 2020.

[9] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 17 August 2020.

[10] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 17 August 2020.

[11] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 17 August 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 that the Bahamas has taken action to consolidate its inventories of dangerous pathogens and toxins into a minimum number of facilities. The Ministry of Health, Ministry of Agriculture, Ministry of National Security, and Royal Bahamas Defence Force offer no evidence of consolidation of pathogen and toxin inventories. [1, 2, 3, 4] There is also no indication of such a consolidation by the Caribbean Public Health Agency (CARPHA) Laboratory. [5] The Bahamas Health Rules of 2001, which mentions testing for notifiable diseases, does not cover biosecurity. [6] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC, and there is no other relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [7, 8]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 16 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 16 August 2020.

[3] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 16 August 2020..

[4] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 16 August 2020.

[5] Caribbean Public Health Agency (CARPHA). "Laboratory Services". [<https://www.carpha.org/What-We-Do/LABS/Overview>]. Accessed 16 August 2020.

[6] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 16 August 2020.

[7] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 16 August 2020.

[8] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 16 August 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 in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax and/or Ebola, which would preclude culturing a live pathogen, in the Bahamas. The Caribbean Public Health Agency (CARPHA), in conjunction with the Pan American Health Organization of the World Health Organization (PAHO/WHO), has facilitated access to laboratory facilities at the WHO-Collaborating Centres at the United States Centers for Disease Control and Prevention and Public Health Agency Canada for diagnosis of Ebola cases. [1] As of 2014, the CARPHA Biosafety Level 3 (BSL3) laboratory, based in Trinidad and Tobago, was being prepared to receive and test clinical samples from suspected Ebola patients using molecular diagnostic methods; however Ebola viral culture will not be conducted at this laboratory, since this can only be done safely in a BSL4 laboratory facility. [1] There is no information about diagnostic testing for anthrax

and/or Ebola provided by the Ministry of Health, Ministry of Agriculture, Ministry of National Security, and Royal Bahamas Defence Force. [2, 3, 4, 5] Anthrax is not listed among the CARPHA laboratory testing services, however, CARPHA directs that in suspected cases of cutaneous anthrax, specimens may be taken from the skin lesions and blood cultures. [6]

[1] Caribbean Public Health Agency (CARPHA). 15 December 2014. "CARPHA Response to the Ebola Epidemic in West Africa". [https://www.carpha.org/Portals/0/Documents/Ebola-What_is_CARPHA_Doing_FINAL_15122014.pdf]. Accessed 16 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 16 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 16 August 2020.

[4] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 16 August 2020.

[5] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 16 August 2020.

[6] Caribbean Public Health Agency (CARPHA). January 2020. "Laboratory Procedure Manual".

[[https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual\[1452\].pdf?ver=2020-04-16-180718-920](https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual[1452].pdf?ver=2020-04-16-180718-920)]. Accessed 16 August 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 that the Bahamas requires 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. There have been one-off biosecurity trainings in the country. In 2014, the Caribbean Public Health Agency (CARPHA) hosted two workshops, on shipping of infectious substances and biosafety practices in a clinical laboratory. [1] In 2016, the Caribbean Animal Health Network (CaribVET) hosted three workshops on poultry biosecurity. [2] The Ministry of Health, Ministry of Agriculture, Ministry of National Security and Royal Bahamas Defence Force make no mention of standardized biosecurity training. [3, 4, 5, 6] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [7] There is no relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [8]

[1] Caribbean Public Health Agency (CARPHA). "CARPHA Trains Laboratory Personnel to Better Manage Outbreak Situations in the Region". [<https://carpha.org/More/Media/Articles/ArticleID/85/CARPHA-Trains-Laboratory-Personnel-to-Better-Manage-Outbreak-Situations-in-the-Region>]. Accessed 16 August 2020.

[2] Caribbean Animal Health Network (CaribVET). "April: the month of Biosecurity, April 2016, Guyana, Trinidad, Tobago". [<https://www.caribvet.net/training/training-workshops/april-the-month-of-biosecurity>]. Accessed 16 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 16 August 2020.

[4] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 16 August 2020.

[5] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 16 August 2020.

[6] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 16 August 2020.

[7] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 16 August 2020.

[8] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 16 August 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 the Bahamas has regulations or licensing conditions specifying that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to drug testing, background checks, and psychological or mental fitness checks. The Ministry of Health, Ministry of Agriculture, Ministry of National Security, and Royal Bahamas Defence Force make no mention of such requirements. [1, 2, 3, 4] The Health Services Rules of 2001, Health Professions Regulations of 2000, and the Health and Safety at Work Act of 2002 do not specifically address personnel with access to especially dangerous pathogens. [5, 6, 7] There is also no mention of personnel checks through the Caribbean Public Health Agency (CARPHA) laboratory. [8] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [9] There is no relevant evidence among the legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [10]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 16 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 16 August 2020.

[3] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 16 August 2020.

[4] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 16 August 2020.

[5] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 16 August 2020.

[6] Government of the Bahamas - Statute Law of the Bahamas. Statutory Instrument (S.I.) 78/2000, S.I. 101/2001 - Chapter 233 (Section 20) 2000. "Health Professions (General) Regulations, 2000".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2000/2000-0078/HealthProfessionsGeneralRegulations2000_1.pdf]. Accessed 16 August 2020.

[7] Government of the Bahamas - Statute Law of the Bahamas. No. 2 of 2002 - Chapter 321C. "Health and Safety at Work Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2002/2002-0002/HealthandSafetyatWorkAct_1.pdf]. Accessed 16 August 2020.

[8] Caribbean Public Health Agency (CARPHA). "Laboratory Services". [<https://www.carpha.org/What-We-Do/LABS/Overview>]. Accessed 16 August 2020.

[9] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 16 August 2020.

[10] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 16 August 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 insufficient evidence to demonstrate that the Bahamas has regulations on the safe and secure transport of infectious substances (Categories A and B). Although the Caribbean Public Health Agency (CARPHA) issues guidance on the transport of infectious substances, it is unclear if this is a recommendation or a requirement. The CARPHA Laboratory User Manual provides guidelines and requirements for the preparation, packaging, and shipping of specimens, including Category A and B infectious substances. [1] The guidelines define Category A and B infectious substances and include them under one of four classes of dangerous goods, Toxic and Infectious Substances. [1] The guidelines are according to Annex 2 of the World Health Organization (WHO) Guidance on regulations for the Transport of Infectious Substances 2011-2012. [1] The Health Services Rules do not cover transport of infectious substances and no other legislation captures this topic. [2, 3] There is no evidence of regulations on the safe and secure transport of infectious substances through the Ministry of Health, Ministry of Agriculture, Ministry of National Security, or Royal Bahamas Defence Force. [4, 5, 6, 7] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [8] The potentially relevant regulations listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database—including the Customs Management Regulations of 2013, the Export Control Regulations of 1957 and 1965, and the Import Control Regulations of 1987—do not cover the safe and secure transport of infectious substances. [9]

[1] Caribbean Public Health Agency (CARPHA). January 2020. "Laboratory Procedure Manual".

[[https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual\[1452\].pdf?ver=2020-04-16-180718-920](https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual[1452].pdf?ver=2020-04-16-180718-920)]. Accessed 22 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 22 August 2020.

[3] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [<http://laws.bahamas.gov.bs/cms/en/>]. Accessed 22 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

[6] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 22 August 2020.

[7] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 22 August 2020.

[8] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 2020.

[9] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 2020.

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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 that the Bahamas has 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 Customs Management Act of 2009 and the list of Prohibited and Restricted Imports and Exports from the Ministry of Finance do not mention pathogens, toxins and pathogens with pandemic potential. [1, 2] A working paper titled, International Activities of the Government of Canada related to Article X of the Biological and Toxin Weapons Convention: Update 2015, out of the United Nations Office at Geneva indicates that, beginning in 2015, Canada has been supporting the enhancement of export controls and border security measures to prevent the proliferation and trafficking of weapons of mass destruction (WMDs), including biological materials, in the Caribbean. [3] There is no evidence of such legislation, regulation, or guidance specific to cross-border transfer available through the Ministry of Health, Ministry of Agriculture, Ministry of National Security, Royal Bahamas Defence Force, or the Government of the Bahamas website, which includes the Ministry of Financial Services, Trade and Industry and Immigration. [4, 5, 6, 7, 8] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [9] The potentially relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database—including the Customs Management Act of 2009, the Export Control Regulations Act of 1955, and the Import Control Act and Regulations of 1987—do not address cross-border transfer and end-user screening of especially dangerous pathogens. [10]

[1] Government of the Bahamas - Statute Law of the Bahamas. Chapter 293. "Customs Management Act of 1976".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/1976/1976-0004/CustomsManagementAct_1.pdf].

Accessed 22 August 2020.

[2] Ministry of Finance of the Bahamas. "Prohibited and Restricted Imports and Exports".

[<https://www.bahamas.gov.bs/wps/wcm/connect/28d2195f-b1f9-4fc2-a1b4-82d56181d7eb/CD.Prohibited+and+restricted+imports+and+exports.pdf?MOD=AJPERES&CACHEID=28d2195f-b1f9-4fc2-a1b4-82d56181d7eb>].

Accessed 22 August 2020.

[3] The United Nations Office at Geneva. "Working Paper 3: International Activities of the Government of Canada related to Article X of the Biological and Toxin Weapons Convention: Update 2015".

[[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/3BAB21866EC7F6B1C1257F17002CF205/\\$file/2015+MSP+WP+3+CANADA-+Adv_Ver.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/3BAB21866EC7F6B1C1257F17002CF205/$file/2015+MSP+WP+3+CANADA-+Adv_Ver.pdf)].

Accessed 22 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health].

Accessed 22 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine].

Accessed 22 August 2020.

[6] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>].

Accessed 22 August 2020.

[7] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>].

Accessed 22 August 2020.

[8] Government of the Bahamas - Ministry of Financial Services, Trade and Industry and Immigration.

[<https://bit.ly/2U507eC>].

Accessed 22 August 2020.

[9] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building

Measures Report. [[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/3BAB21866EC7F6B1C1257F17002CF205/\\$file/2015+MSP+WP+3+CANADA-+Adv_Ver.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/3BAB21866EC7F6B1C1257F17002CF205/$file/2015+MSP+WP+3+CANADA-+Adv_Ver.pdf)].

Accessed 22 August 2020.

[10] VERTIC Biological Weapons Convention (BWC) Legislation Database. [[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/3BAB21866EC7F6B1C1257F17002CF205/\\$file/2015+MSP+WP+3+CANADA-+Adv_Ver.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/3BAB21866EC7F6B1C1257F17002CF205/$file/2015+MSP+WP+3+CANADA-+Adv_Ver.pdf)].

Accessed 22 August 2020.

Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 2020.

[10] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 2020.

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the Bahamas has in place national biosafety legislation and/or regulations. There is a draft Biosecurity Strategy document, which includes biosafety, that was made available in 2010 by the Caribbean Invasive Alien Species Network (CIASNET). [1, 2] However, this strategy document only pertains to Living Modified Organisms (LMOs) and protecting biodiversity. [1, 2] A Caribbean regional forum in 2017 included mention of the Caribbean Public Health Agency (CARPHA)'s role in assisting Member States in areas of biosafety and biosecurity. [3] In 2014, CARPHA received a Biosafety Level 3 (BSL-3) laboratory, and there is evidence that CARPHA has conducted biosafety trainings. [4, 5] There is also a Regional Project for Implementing National Biosafety Frameworks in the Caribbean Sub-Region, which pertains to biotechnology. [6] The Bahamas is party to the Cartagena Protocol, which aims to ensure the safe handling, transport and use of living modified organisms. [7] According to a 2017 news story by the United Nations (UN) Environment Programme, the Bahamas is among the Caribbean countries participating in a project towards ensuring compliance with the protocol. [8] There is no indication of biosafety legislation or regulations through the Ministry of Health or Ministry of Agriculture. [9, 10] There is no mention of biosafety in the Health Services Rules of 2001 or the Health Professions Regulations of 2000. [11, 12] The provisions of the Health and Safety at Work Act of 2002 are intended, in part, to prevent the unlawful acquisition, possession and use of dangerous substances, but there is no specific mention of biological substances. [13] There is no other relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [14] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [15]

[1] The Commonwealth of the Bahamas. ND. "Draft National Biosecurity Strategy (NBS)".

[http://www.best.gov.bs/Documents/Bahamas_Biosecurity_Strategy.pdf]. Accessed 22 August 2020.

[2] Caribbean Invasive Alien Species Network (CIASNET). 12 August 2010. "Bahamas Biosecurity Strategy".

[<http://www.ciasnet.org/2010/08/12/bahamas-biosecurity-strategy/>]. Accessed 22 August 2020.

[3] Caribbean Public Health Agency (CARPHA). 30 July 2017. "Regional Laboratories Prepare to Detect and Respond to New and Emerging Diseases". [<https://carpha.org/More/Media/Articles/ArticleID/192/Regional-Laboratories-Prepare-to-Detect-and-Respond-to-New-and-Emerging-Diseases>]. Accessed 22 August 2020.

[4] Ministry of Health of Trinidad and Tobago. 15 May 2014. "CARPHA's New Laboratory Promises Faster Detection and Response to Control Disease Outbreaks in the Caribbean". [<http://health.gov.tt/news/newsitem.aspx?id=475>]. Accessed 22 August 2020.

[5] Caribbean Public Health Agency (CARPHA). 12 May 2014. "CARPHA Trains Laboratory Personnel to Better Manage Outbreak Situations in the Region". [<https://carpha.org/More/Media/Articles/ArticleID/85/CARPHA-Trains-Laboratory-Personnel-to-Better-Manage-Outbreak-Situations-in-the-Region>]. Accessed 22 August 2020.

[6] Regional Project for Implementing National Biosafety Frameworks in the Caribbean Sub-Region.

[<https://caribbeanbiosafety.org/>]. Accessed 22 August 2020.

[7] Observatory on Principle 10 in Latin America and the Caribbean. "The Cartagena Protocol on Biosafety to the Convention on Biological Diversity". [<https://observatoriop10.cepal.org/en/treaties/cartagena-protocol-biosafety-convention-biological-diversity>] Accessed 22 August 2020.

[8] United Nations Environment Programme. 7 June 2017. "Strengthening Biosafety in the Caribbean".

[<https://www.unenvironment.org/news-and-stories/story/strengthening-biosafety-caribbean>]. Accessed 22 August 2020.

[9] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[10] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

[11] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 22 August 2020.

[12] Government of the Bahamas - Statute Law of the Bahamas. Statutory Instrument (S.I.) 78/2000, S.I. 101/2001 - Chapter 233 (Section 20) 2000. "Health Professions (General) Regulations, 2000".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2000/2000-0078/HealthProfessionsGeneralRegulations2000_1.pdf]. Accessed 22 August 2020.

[13] Government of the Bahamas - Statute Law of the Bahamas. No. 2 of 2002 - Chapter 321C. "Health and Safety at Work Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2002/2002-0002/HealthandSafetyatWorkAct_1.pdf]. Accessed 22 August 2020.

[14] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 2020.

[15] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 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 of an established agency responsible for the enforcement of biosafety legislation and regulations, as the Bahamas does not have in place national biosafety legislation and/or regulations. The Ministry of Health and Ministry of Agriculture make no mention of responsibility for enforcement of biosafety legislation. [1, 2] A Caribbean regional forum in 2017 included mention of the Caribbean Public Health Agency (CARPHA)'s role in assisting Member States in areas of biosafety and biosecurity. [3] The provisions of the Health and Safety at Work Act of 2002 are intended, in part, to prevent the unlawful acquisition, possession and use of dangerous substances, but there is no specific mention of biological substances. [4] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [5] There is no other relevant evidence among the legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [6]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

[3] Caribbean Public Health Agency (CARPHA). 30 July 2017. "Regional Laboratories Prepare to Detect and Respond to New and Emerging Diseases". [<https://carpha.org/More/Media/Articles/ArticleID/192/Regional-Laboratories-Prepare-to-Detect-and-Emerging-Diseases>].

and-Respond-to-New-and-Emerging-Diseases]. Accessed 22 August 2020.

[4] Government of the Bahamas - Statute Law of the Bahamas. No. 2 of 2002 - Chapter 321C. "Health and Safety at Work Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2002/2002-0002/HealthandSafetyatWorkAct_1.pdf]. Accessed 22 August 2020.

[5] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 2020.

[6] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the Bahamas 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. The Caribbean Public Health Agency (CARPHA) has biosafety and biosecurity training materials available for Belize, Jamaica, and Guyana, but no such materials are available from the Bahamas. [1] The curriculum for CARPHA's Field Epidemiology and Laboratory Training Programme (FELTP) includes laboratory and biosafety training as a core domain, but there is no information available on the Bahama's involvement in FELTP. [2] A 2014 news post by the CARPHA mentions training workshops for participants from 12 Caribbean countries on the shipping of infectious substances and biosafety practices in clinical laboratory. [3] The Ministry of Health and Ministry of Agriculture make no mention of standardized biosafety trainings. [4, 5] There is no mention of biosafety training in the Health Services Rules of 2001, the Health Professions Regulations of 2000, or the Health and Safety at Work Act of 2002. [6, 7, 8] There is no other relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [9] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [10]

[1] Caribbean Public Health Agency (CARPHA). "Biosafety and Biosecurity Training Materials".

[<https://www.carpha.org/What-We-Do/-Laboratory-Biosafety-and-Biosecurity-Training-Materials>]. Accessed 22 August 2020.

[2] Caribbean Public Health Agency (CARPHA). "FELTP - Structure". [<https://carpha.org/What-We-Do/FELTP/Structure>]. Accessed 22 August 2020.

[3] Caribbean Public Health Agency (CARPHA). 12 May 2014. "CARPHA Trains Laboratory Personnel to Better Manage Outbreak Situations in the Region". [<https://carpha.org/More/Media/Articles/ArticleID/85/CARPHA-Trains-Laboratory-Personnel-to-Better-Manage-Outbreak-Situations-in-the-Region>]. Accessed 22 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

[6] Government of the Bahamas - Statute Law of the Bahamas. Chapter 231 (Section 29) 2001. "Health Services - Health Rules". [http://www.vertic.org/media/National%20Legislation/Bahamas/BS_Health_Services_Rules.pdf]. Accessed 22 August 2020.

[7] Government of the Bahamas - Statute Law of the Bahamas. Statutory Instrument (S.I.) 78/2000, S.I. 101/2001 - Chapter 233 (Section 20) 2000. "Health Professions (General) Regulations, 2000".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/SUBORDINATE/2000/2000-0078/HealthProfessionsGeneralRegulations2000_1.pdf]. Accessed 22 August 2020.

[8] Government of the Bahamas - Statute Law of the Bahamas. No. 2 of 2002 - Chapter 321C. "Health and Safety at Work Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2002/2002-0002/HealthandSafetyatWorkAct_1.pdf]. Accessed 22 August 2020.

[9] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 2020.

[10] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 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 insufficient evidence that the Bahamas 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. The Caribbean Public Health Agency (CARPHA) 2013 Corporate Inaugural Report indicates that final activities of the "Strengthening Laboratory Capacity and Biorisk Management in [Caribbean Epidemiology Centre] CAREC and CAREC Member Countries (IGA0031-2012 (4015-11 PAHO) were concluded", however, this did not cover an assessment of ongoing research on the topic. [1] A needs assessments for five countries, including the Bahamas on 20 February 2013, was conducted "to determine national public health laboratory services' preparedness to detect, contain and respond to emergencies caused by high-risk agents." [1] The Ministry of Health, Ministry of National Security, or Ministry of Agriculture provide no information on dual use research or an assessment to determine whether ongoing research is occurring. [2, 3, 4] A presentation in April 2018 from a regional workshop on developments relevant to the Biological Weapons Convention (BWC) for Latin America and the Caribbean indicates that CARICOM Member States have not prioritized the development of regulatory frameworks to prevent the misuse of science and technology. [5] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [6] There is no relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [7]

[1] Caribbean Public Health Agency (CARPHA). "Corporate Inaugural Report - 2013".

[https://www.carpha.org/Portals/0/Documents/CARPHA_ANNUAL_REPORT_2013_EVERSION.pdf]. Accessed 22 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[3] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 22 August 2020.

[4] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

- [5] The United Nations Office at Geneva. "Regulatory Frameworks to Prevent the Misuse of Science and Technology - Regional Workshop on Science and Technology: Developments Relevant to the Biological Weapons Convention (BWC) for Latin America and the Caribbean".
[[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/8D3E81383571A952C125827C00441E47/\\$file/CARICOM_SnT+Worshop+LAC.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/8D3E81383571A952C125827C00441E47/$file/CARICOM_SnT+Worshop+LAC.pdf)]. Accessed 22 August 2020.
- [6] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 2020.
- [7] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 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 legislation and/or regulations requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research in the Bahamas. The Ministry of Health, Ministry of National Security, and Ministry of Agriculture provide no information on dual use research or a national policy requiring oversight of dual use research. [1, 2, 3] A presentation in April 2018 from a regional workshop on developments relevant to the Biological Weapons Convention (BWC) for Latin America and the Caribbean indicates that CARICOM Member States have not prioritized the development of regulatory frameworks to prevent the misuse of science and technology. [4] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [5] There is no relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [6]

- [1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.
- [2] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 22 August 2020.
- [3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.
- [4] The United Nations Office at Geneva. "Regulatory Frameworks to Prevent the Misuse of Science and Technology - Regional Workshop on Science and Technology: Developments Relevant to the Biological Weapons Convention (BWC) for Latin America and the Caribbean".
[[https://www.unog.ch/80256EDD006B8954/\(httpAssets\)/8D3E81383571A952C125827C00441E47/\\$file/CARICOM_SnT+Worshop+LAC.pdf](https://www.unog.ch/80256EDD006B8954/(httpAssets)/8D3E81383571A952C125827C00441E47/$file/CARICOM_SnT+Worshop+LAC.pdf)]. Accessed 22 August 2020.
- [5] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 2020.
- [6] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 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 an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research in the Bahamas. The Health Information and Research Unit reports on communicable disease, but there is no evidence of the Unit's role in research with especially dangerous pathogens or other dual use research. [1] The Ministry of Health has no information on oversight of research by these entities, and the Ministry of National Security and Ministry of Agriculture provide no indication of an agency responsible for oversight of research with especially dangerous pathogens. [2, 3, 4] The Agreement Establishing the Caribbean Public Health Agency (CARPHA) states that CARPHA is responsible for "conduct of relevant research on public-health priorities in the Caribbean". [5] There is no evidence that CARPHA is responsible for oversight of research with especially dangerous pathogens, though CARPHA is equipped to investigate communicable diseases through security laboratories, as well as specialized units, such as an experimental mosquito colony. [6] A presentation in April 2018 from a regional workshop on developments relevant to the Biological Weapons Convention (BWC) for Latin America and the Caribbean indicates that CARICOM Member States have not prioritized the development of regulatory frameworks to prevent the misuse of science and technology. [7] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [8] There is no relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [9]

[1] Ministry of Health of the Bahamas - Health Information and Research Unit. "Communicable (Infectious) Disease". [https://bit.ly/2VgDR1s]. Accessed 22 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[3] Ministry of National Security of the Bahamas. [http://www.bahamas.gov.bs/nationalsecurity]. Accessed 22 August 2020.

[4] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

[5] Caribbean Public Health Agency (CARPHA). 2011. "Agreement Establishing the Caribbean Public Health Agency (CARPHA)". [https://caricom.org/documents/legaldocuments/10375-carpha-iga.pdf]. Accessed 22 August 2020.

[6] Caribbean Public Health Agency (CARPHA). "Communicable Diseases". [https://www.carpha.org/What-We-Do/Communicable-Diseases]. Accessed 22 August 2020.

[7] The United Nations Office at Geneva. "Regulatory Frameworks to Prevent the Misuse of Science and Technology - Regional Workshop on Science and Technology: Developments Relevant to the Biological Weapons Convention (BWC) for Latin America and the Caribbean".

[https://www.unog.ch/80256EDD006B8954/(httpAssets)/8D3E81383571A952C125827C00441E47/\$file/CARICOM_SnT+Wor kshop+LAC.pdf]. Accessed 22 August 2020.

[8] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [https://bwc-ecbm.unog.ch/state/bahamas]. Accessed 22 August 2020.

[9] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/]. Accessed 22 August 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 national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold in the Bahamas. There is no evidence of such a policy provided by the Ministry of Health, Ministry of Agriculture, or Ministry of National Security. [1, 2, 3] There is no evidence that the Caribbean Community (CARICOM) and Caribbean Public Health Agency (CARPHA) has relevant legislation, regulation, policy or other guidance. [4, 5] Although the Bahamas is party to the Biological Weapons Convention (BWC), the country has not shared Confidence Building Measures reports. There is no additional information on this subject shared via reports to the BWC. [6] There is no relevant legislation listed for the Bahamas in the VERTIC Biological Weapons Convention (BWC) Legislation Database. [7]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 22 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 22 August 2020.

[3] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 22 August 2020.

[4] Caribbean Community (CARICOM). [<https://www.caricom.org/>]. Accessed 22 August 2020.

[5] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 22 August 2020.

[6] United Nations Office at Geneva (UNOG) - Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Bahamas". [<https://bwc-ecbm.unog.ch/state/bahamas>]. Accessed 22 August 2020.

[7] Verification Research, Training and Information Centre (VERTIC). "Biological Weapons Convention (BWC) Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 22 August 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: 1

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: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 0

There is insufficient evidence that the national laboratory system of the Bahamas has the capacity to conduct diagnostic tests for at least 5 of the 10 World Health Organization (WHO)-defined core tests. There is no evidence that the Bahamas has publicly defined the four country-specific tests, but the CARPHA Laboratory—which serves as the regional reference laboratory and is located in Trinidad—can perform 5 of the 6 commonly defined core tests. According to CARPHA's list of laboratory tests and Laboratory Procedure Manual, the CARPHA Laboratory can perform PCR for influenza; PCR and virus isolation for polio; identification (PCR) and drug sensitivity (PCR) for tuberculosis; PCR for malaria; and identification and serotyping (isolate in maintenance media) for typhoid. [1, 2] CARPHA performs a PCR assay using the Xpert MTB/RIF test for *Mycobacterium tuberculosis*, which is recommended by the WHO over conventional microscopy to diagnose pulmonary TB. [2, 3] The Testing for HIV is not listed as part of CARPHA's Testing Services, however, CARPHA indicates that HIV/AIDS and sexually transmitted disease are among the diseases routinely investigated. [4] No evidence on testing is available through the Ministry of Health, including any indication that Antigua and Barbuda has publicly defined the four country-specific tests. [5]

[1] Caribbean Public Health Agency (CARPHA). "Laboratory Testing Services". [<https://www.carpha.org/What-We-Do/Laboratory/Laboratory-Testing-Services>]. Accessed 1 August 2020.

[2] Caribbean Public Health Agency (CARPHA). January 2020. "Laboratory Procedure Manual". [[https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual\[1452\].pdf?ver=2020-04-16-180718-920](https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual[1452].pdf?ver=2020-04-16-180718-920)]. Accessed 1 August 2020.

[3] World Health Organization (WHO). 2014. "Xpert MTB/RIF implementation manual." [https://apps.who.int/iris/bitstream/handle/10665/112469/9789241506700_eng.pdf?sequence=1]. Accessed 27 February 2021.

[4] Caribbean Public Health Agency (CARPHA). "Communicable Diseases". [<https://carpha.org/What-We-Do/Communicable-Diseases>]. Accessed 1 August 2020.

[6] Ministry of Health, Wellness & The Environment of Antigua and Barbuda. [https://ab.gov.ag/detail_page.php?page=29]. Accessed 1 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 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 insufficient evidence that there is 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 Ministry of Health's Epidemiology and Surveillance Unit "is responsible for investigation, prevention and control of communicable diseases." [1] According to an April 2020 press release regarding contact tracing for COVID-19, the Surveillance Unit uses a three-step process that involves testing, but there is no indication of a publicly available national plan or strategy for conducting testing. [2] COVID-19 testing is also covered in a communication from the Minister of Health to Parliament, however, no national plan or strategy regarding testing is referenced. [3] In April 2020, an article from the Caribbean Community (CARICOM), and a press release from the Caribbean Public Health Agency (CARPHA) stated that the regional reference laboratory, CARPHA's Medical Microbiology Laboratory (CMML) conducts COVID-19 testing for Member States. [4, 5] CARPHA has publicly available "CARPHA Interim Guidance for the Evaluation and Selection of Diagnostic Tests for the COVID-19 Response" as of June 2020. [6] However, there is no evidence of a CARPHA plan or similar strategy document for conducting testing during a public health emergency, including for COVID-19. [7] There is no evidence of a national plan through the country's Ministry of Health or Ministry of Agriculture. [8, 9]

[1] Ministry of Health of the Bahamas. "Epidemiology and Surveillance". [<https://bit.ly/2InlZQV>]. Accessed 23 August 2020.

[2] The Government of the Bahamas. "Press Release: MOH's Communicable Disease Surveillance Unit Key in the Fight against the Coronavirus". [<https://bit.ly/2CQ7OBQ>]. Accessed 23 August 2020.

[3] The Government of the Bahamas. 6 April 2020. "Communication to Parliament: An Update on the COVID-19 Response in The Bahamas ". [<https://www.bahamas.gov.bs/wps/wcm/connect/8b524ba2-5060-44ae-94f3-81d16512230a/Communication+in+the+House+of+Assembly+-+An+Update+on+COVID-19+Response+in+The+Bahamas+-+FINAL.pdf?MOD=AJPERES>]. Accessed 23 August 2020.

[4] Caribbean Community (CARICOM). 22 April 2020. "CARPHA'S COVID-19 Testing Process and Adherence to Quality Standards." [<https://caricom.org/carphas-covid-19-testing-process-and-adherence-toquality-standards/>]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA). 15 April 2020. "CARPHA's Role in COVID-19 Testing." [<https://www.carpha.org/Portals/0/Documents/Media%20Releases/CARPHA%E2%80%99s%20Role%20in%20COVID-19%20Testing.pdf>]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA). 2 June 2020. "CARPHA Interim Guidance for the Evaluation and Selection of Diagnostic Tests for the COVID-19 Response. Revised Version." [<https://carpha.org/Portals/0/Documents/Technical%20Guidance/CARPHA%20Interim%20Guidance%20for%20the%20Evaluation%20and%20Selection%20ofDiagnostic%20Tests%20for%20the%20COVID-19%20Response.pdf>]. Accessed 23 August 2020.

[7] Caribbean Public Health Agency (CARPHA). [<https://www.carpha.org/>]. Accessed 23 August 2020.

[8] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[9] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 23 August 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 that there is a national laboratory that serves as a reference facility that is accredited. According to Strengthening Laboratory Management Toward Accreditation (SLMTA), the Princess Margaret Hospital Laboratory, located in Nassau, Bahamas was awarded accreditation through the Jamaica National Agency for Accreditation (JANAAC) to ISO 15189 in 2016. [1] ISO 15189 is a standard of the International Organization for Standardization (ISO) that recognizes quality and competence in medical laboratories. [2] However, there is no indication that Princess Margaret Hospital serves as a reference facility. [3] The current JANAAC accreditation expires August 29, 2020. [4] SLMTA indicated that the HIV National Reference Laboratory in the Bahamas was awarded CAP (College of American Pathologists) accreditation in 2013. [1, 5] The CAP Laboratory Accreditation Program "accredits the entire spectrum of laboratory test disciplines with the most scientifically rigorous customized checklist requirements" and is recognized by The Joint Commission. [5] According to a 2017 peer-reviewed publication in the African Journal of Laboratory Medicine, it has been a challenge to implement quality management systems and accredit laboratories in the Caribbean. [6] There is no evidence of a national laboratory that serves as a reference facility which is accredited through the Ministry of Health or Ministry of Agriculture. [7, 8]

[1] Strengthening Laboratory Management Toward Accreditation (SLMTA). "SLMTA Laboratories that have achieved accreditation". [<https://slmta.org/accredited-labs/>]. Accessed 23 August 2020.

[2] International Organization for Standardization (ISO). "ISO 15189:2012 Medical laboratories -- Requirements for quality and competence". [<https://www.iso.org/standard/56115.html>]. Accessed 23 August 2020.

[3] Strengthening Laboratory Management Toward Accreditation (SLMTA). "Lessons Learned from SLMTA Accredited Labs". [<https://slmta.org/lessons-learned/princessmargaretbahamas>]. Accessed 23 August 2020.

[4] Jamaica National Agency for Accreditation (JANAAC). "Princess Margaret Hospital, Department of Pathology & Lab Medicine". [<https://www.janaac.gov.jm/accredited-cabs/labs/22-princess-margaret-hospital-department-of-pathology-lab-medicine.html>]. Accessed 23 August 2020.

[5] College of American Pathologists. "Laboratory Accreditation Program". [<https://www.cap.org/laboratory-improvement/accreditation/laboratory-accreditation-program>]. Accessed 23 August 2020.

[6] Alemnji G, Edghill L, Guevara G, et al. 2017. "Development and implementation of the Caribbean Laboratory Quality Management Systems Stepwise Improvement Process (LQMS-SIP) Towards Accreditation". African Journal of Laboratory Medicine. 6[1] , a496. [<https://doi.org/10.4102/ajlm.v6i1.496>]. Accessed 23 August 2020.

[7] Ministry of Health of Bahamas. [www.bahamas.gov.bs/health]. Accessed 10 September 2020.

[8] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 10 September 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 that there is a national laboratory that serves as a reference facility that is subject to external quality assurance review. A 2017 peer-reviewed publication in the African Journal of Laboratory Medicine states that implementing quality management systems in the Caribbean laboratory has been a challenge. [1] Public analyst laboratories are among the responsibilities of the Ministry of Health, and there is mention in a 2013 local news article about a Ministry of Health's HIV Reference Laboratory at Royal Victoria Garden, but there is no evidence of other reference facilities or external quality assurance review for these sites through the Ministry of Health or Ministry of Agriculture. [2, 3, 4, 5] The Princess Margaret Hospital Laboratory, located in Nassau, Bahamas is part of the country's Public Hospitals Authority, offers a range of laboratory services, and is accredited, but there is no indication that the laboratory serves as a reference facility. [6]

[1] Alemnji G, Edghill L, Guevara G, et al. 2017. "Development and implementation of the Caribbean Laboratory Quality Management Systems Stepwise Improvement Process (LQMS-SIP) Towards Accreditation". African Journal of Laboratory Medicine. 6[1] , a496. [<https://doi.org/10.4102/ajlm.v6i1.496>]. Accessed 23 August 2020.

[2] Government of the Bahamas. "Government Departments - Ministry of Health". [<https://bit.ly/2nQ6HWa>]. Accessed 23 August 2020.

[3] Cadet, A. Tribune 242. 17 December 2013. "Laboratory Accreditation: A Milestone For The Ministry Of Health". [<http://www.tribune242.com/news/2013/dec/16/laboratory-accreditation-a-milestone-for-the/>]. Accessed 23 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 23 August 2020.

[6] Princess Margaret Hospital. [<http://www.pmh.phabahamas.org/>]. Accessed 23 August 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 a nationwide specimen transport system in the Bahamas. There are private courier systems, such as Bahamas Couriers Limited, that operate in the Bahamas, but there is no indication that this includes specimen transport. [1] A Pan American Health Organization report from 2008 of regional meeting of Caribbean epidemiology managers indicated that specimen transport within countries is one of the challenges of surveillance, as there is often no formal reliable transport. [2] The Caribbean Public Health Agency (CARPHA) laboratory provides detailed instructions on preparation, packaging and shipping, and indicates that all specimens must be routed through the relevant National Reference/Public Health Laboratory or the Ministry of Health. [3, 4] There is no information on specimen transport systems provided by the Ministry of Health or Ministry of Agriculture. [5, 6]

[1] Bahamaslocal.com. "Bahamas Couriers Limited".

[https://www.bahamaslocal.com/showlisting/17337/Bahamas_Couriers_Ltd.html]. Accessed 23 August 2020.

[2] Pan American Health Organization/World Health Organization. November 2008. "Twenty-fifth Meeting of the Caribbean Epi Managers - Final Report". [<https://www.paho.org/hq/dmdocuments/2017/Immunization-Caribbean-EPI-25-Mgrs-Mtg-2008-e.pdf>]. Accessed 23 August 2020.

[3] Caribbean Public Health Agency (CARPHA). "Laboratory - Annex 2: Guidelines for Preparation, Packing and Shipping Specimens". [<https://carpha.org/What-We-Do/Laboratory/Annex-2-GUIDELINES-FOR-PREPARATION-PACKING-AND->

SHIPPING-SPECIMENS]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA). January 2020. "Laboratory Procedure Manual".

[https://carpha.org/Portals/0/GUL-Q05-001-05_User%20Manual[1452].pdf?ver=2020-04-16-180718-920]. Accessed 23 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[6] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 23 August 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 the Bahamas has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. There is no such evidence available through the Ministry of Health or Ministry of Agriculture. [1, 2] A COVID-19 brief from the Caribbean Med Labs Foundation (CMLF), a non-governmental organisation dedicated to assisting governments around best practice in medical laboratory services in the Caribbean region, calls for scaling up laboratory services in the region. [3] The Caribbean Public Health Agency (CARPHA) reported that its Medical Microbiology Laboratory (CMML)'s COVID-19 testing met 100% compliance of turnaround time for all Member States in May and June 2020. [4] However, there is no evidence of CARPHA having a plan in place to scale-up testing during an outbreak. [5]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 23 August 2020.

[3] Caribbean Med Labs Foundation. "COVID-19: An opportunity for strengthening laboratories and health systems in the region". [http://cmedlabsfoundation.net/documents/COVID-19.pdf]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA). 14 July 2020. "CARPHA Laboratory Achieves 100% Turnaround Time for All Diagnostic Tests." [https://carpha.org/More/Media/Articles/ArticleID/341]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA). [http://carpha.org]. Accessed 23 August 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: 1

There is evidence that the Bahamas, as part of the Caribbean Public Health Agency (CARPHA), conducts ongoing event-based surveillance and analysis for infectious disease; however, there is insufficient evidence this data is analyzed daily. The Caribbean Public Health Agency (CARPHA) hosts a Tourism and Health Information System (THIS), a real-time system for hotel management and public health officials to identify events such as outbreaks early. [1, 2] The Bahamas is among the eight countries listed as currently implementing THIS. [2] CARPHA has also developed two sets of regional surveillance guidelines—the Caribbean Vessel Surveillance System (CVSS) and Tourist Accommodation-Based Surveillance—to "establish baselines for outbreak detection and strengthen national surveillance". [3] However, there is no evidence that CVSS is an event-based surveillance system. The Ministry of Health and Ministry of Agriculture make no mention of event-based surveillance and the most recent infectious disease data posted in 2014 by the Ministry of Health's Health Information & Research Unit is from 2010. [4, 5, 6]

[1] Caribbean Public Health Agency (CARPHA). "Tourism and Health/Travelers Health Program (THP) - Background".

[<https://carpha.org/THP/Background>]. Accessed 14 August 2020.

[2] Caribbean Public Health Agency (CARPHA). "THP: THIS Hotel Based Surveillance". [<https://carpha.org/THP/THIS-Hotel-Based-Surveillance>]. Accessed 14 August 2020.

[3] Caribbean Public Health Agency (CARPHA). "THP: Regional Guidelines". [<https://carpha.org/THP/Regional-Guidelines-for-Response>]. Accessed 14 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 14 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 14 August 2020.

[6] Ministry of Health of the Bahamas - Health Information and Research Unit. "Communicable (Infectious) Disease".

[<https://bit.ly/2VgDR1s>]. Accessed 14 August 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 evidence that the Bahamas has reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. The Bahamas has reported COVID-19 cases to the WHO, as evidenced by the data on the WHO Coronavirus Disease (COVID-19) Dashboard, but no cases were reported prior to 30 January 2020, when COVID-19 was officially declared a PHEIC. [1] There is no evidence of reporting of the country COVID-19 cases or other PHEIC through the WHO's Disease Outbreak News. [2, 3]

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

[<https://covid19.who.int/region/amro/country/bs>]. Accessed 10 September 2020.

[2] World Health Organization (WHO). "Emergencies preparedness, response - Disease Outbreak News (DONs)".

[<http://www.who.int/csr/don/en/>]. Accessed 23 August 2020.

[3] World Health Organization (WHO). "Emergency Preparedness, Response - Bahamas".

[<https://www.who.int/csr/don/archive/country/bhs/en/>]. Accessed 23 August 2020.

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Bahamas operates an electronic reporting surveillance system at both the national and sub-national level. The Outbreak Reports and Case Investigations webpage of the Government of the Bahamas, which describes active and passive surveillance in the country, does not mention electronic reporting. [1] There is also no mention through the Ministry of Health, including its Health Information and Research Unit and Epidemiology and Surveillance Unit. [2, 3, 4] The Caribbean Public Health Agency (CARPHA)'s role in the Caribbean region includes surveillance of communicable diseases, however details on CARPHA's surveillance system are not publicly available. [5] CARPHA hosts a Tourism and Health Information System (THIS), a real-time system for hotel management and public health officials to identify events such as outbreaks early, and the Bahamas is among the eight countries listed as currently implementing THIS. [6] CARPHA also has the Caribbean Vessel Surveillance System (CVSS) for rapid information flow and coordinated multisectoral response for public health events occurring among visitors from passenger ships. [7] However, there is no other indication of an electronic reporting surveillance system through CARPHA. [8]

[1] Government of the Bahamas. "Outbreak Reports and Case Investigations". [<https://bit.ly/2GOkCse>]. Accessed 23 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[3] Ministry of Health of the Bahamas - Health Information and Research Unit. "Communicable (Infectious) Disease". [<https://bit.ly/2VgDR1s>]. Accessed 23 August 2020.

[4] Ministry of Health of the Bahamas. "Epidemiology and Surveillance". [<https://bit.ly/2InlZQV>]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA). "What we do - Communicable Diseases". [<https://carpha.org/What-We-Do/Communicable-Diseases>]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA). "THP: THIS Hotel Based Surveillance". [<https://carpha.org/THP/THIS-Hotel-Based-Surveillance>]. Accessed 23 August 2020.

[7] Caribbean Public Health Agency (CARPHA). "THP: Regional Guidelines". [<https://carpha.org/THP/Regional-Guidelines-for-Response>]. Accessed 23 August 2020.

[8] Caribbean Public Health Agency (CARPHA). [<https://carpha.org/>]. Accessed 23 August 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Bahamas operates an electronic reporting surveillance system and therefore no evidence of it collecting ongoing or real-time laboratory data. The Outbreak Reports and Case Investigations webpage of the Government of the Bahamas, which describes active and passive surveillance in the country, does not mention electronic reporting. [1] There is also no mention through the Ministry of Health, including its Health Information and Research Unit. [2, 3] The Caribbean Public Health Agency (CARPHA)'s role in the Caribbean region includes surveillance of communicable diseases, however details on CARPHA's surveillance system are not publicly available. [4] CARPHA hosts a Tourism and Health Information System (THIS), a real-time system for hotel management and public health officials to identify events such as outbreaks early, and the Bahamas is among the eight countries listed as currently implementing THIS. [5] CARPHA also has

the Caribbean Vessel Surveillance System (CVSS) for rapid information flow and coordinated multisectoral response for public health events occurring among visitors from passenger ships. [6] However, there is no other indication of ongoing/real time laboratory through CARPHA. [7]

[1] Government of the Bahamas. "Outbreak Reports and Case Investigations". [<https://bit.ly/2GOkCse>]. Accessed 23 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[3] Ministry of Health of the Bahamas - Health Information and Research Unit. "Communicable (Infectious) Disease". [<https://bit.ly/2VgDR1s>]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA). "What we do - Communicable Diseases". [<https://carpha.org/What-We-Do/Communicable-Diseases>]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA). "THP: THiS Hotel Based Surveillance". [<https://carpha.org/THP/THiS-Hotel-Based-Surveillance>]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA). "THP: Regional Guidelines". [<https://carpha.org/THP/Regional-Guidelines-for-Response>]. Accessed 23 August 2020.

[7] Caribbean Public Health Agency (CARPHA). [<https://carpha.org>]. Accessed 23 August 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 insufficient evidence that electronic health records (EHR) are commonly in use in the Bahamas. However, there is evidence that the country is working towards common use of electronic health records. In 2012, the Ministry of Finance issued a request for information inviting qualified vendors to provide information regarding capabilities around a Healthcare Information System (HIS) and an Electronic Medical Record (EMR) information system. [1] A government press release in 2016 reported that the Ministry of Health and its Public Hospitals Authority signed a contract for an Integrated Health Information Management System (IHIMS) that will lead to a one patient, one record system in the Bahamas. [2] In 2017, a government press release indicated that health professionals will be working "together with the designers of the new system over the next 12 to 18 months for the official implementation process" of the IHIMS. [3] There is no more recent information available on the rollout of the IHIMS from the Ministry of Health. [4] In October 2019, Santa Rosa Consulting—"a private consulting firm on IT services for the healthcare industry, based in the United States"—reported that it had completed the first phase of IHIMS for the PHA. [5] Phase one included launching an IT platform, strengthening PHA's IT capabilities and infrastructure, standardizing best practice processes and planning and preparations to evaluate and select an EHR solution. [5] No more recent update is available on the country's IHIMS. There is no indication that the Caribbean Public Health Agency (CARPHA) has EHR commonly in use. [6] However, EHR has been a topic of interest for CARPHA as recently as June 2018, when a representative from the Pan American Health Organisation presented on effective implementation and the steady growth of electronic medical records over the past 15 years. [7]

[1] Public Hospitals Authority of the Commonwealth of The Bahamas. 3 February 2012 (Response Due). "Request for Information Healthcare Information System and Electronic Medical Record System".

[https://www.bahamas.gov.bs/wps/wcm/connect/184f50aa-63d0-4de3-b26a-5b0c1adf2eac/PHA+++RFI+for+HIS-EMR++%28Jan+10-12%29+FINAL.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=184f50aa-63d0-4de3-b26a-5b0c1adf2eac]. Accessed 23 August 2020.

[2] Maura, M. of the Bahamas Information Services of the Government of the Bahamas. 9 August 2016. "Press Release - Universal Platform Establishes One Patient-One Record, Accessible Throughout the Public Health System".

[<https://bit.ly/2NrXdhs>]. Accessed 23 August 2020.

[3] Coakley, A. of the Bahamas Information Services of the Government of the Bahamas. 24 January 2017. "Press Release - Government Closer to Digitized Health Medical Records System With Seminar in Grand Bahama". [<https://bit.ly/2UIW6FZ>]. Accessed 23 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[5] Santa Rosa Consulting. 10 October 2019. "Bahamas Hospitals Authority Enhances Systems and Processes with Help from Santa Rosa Consulting". [<https://www.santarosaconsulting.com/news-and-events/bahamas-hospitals-authority-enhances-systems-and-processes-with-help-from-santa-rosa-consulting/>]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA). [<https://carpha.org>]. Accessed 23 August 2020.

[7] Caribbean Public Health Agency (CARPHA). "63rd Annual CARPHA Health Research Conference: June 14-16, 2018".

[<http://conference.carpha.org/Portals/0/Documents/CARPHA%202018%20WIMJ%20Supplement.pdf>]. Accessed 23 August 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 insufficient evidence that the Bahamas's national public health system has access to electronic health records (EHR) of individuals in their country. The Public Hospitals Authority (PHA), a quasi-government entity under the Ministry of Health, is responsible for the public health care in the country, including the management and development of the country's three public hospitals and "delegated responsibilities, under the authority of the Minister of Health for the management and development of" Grand Bahama Health System, National Emergency Medical Services (NEMS), and Bahamas National Drug Agency (BNDA), and Materials Management Directorate (MMD). [1] There is evidence that country is working towards the PHA having access to EHRs of individuals in their country. A government press release in 2016 reported that the Ministry of Health and PHA signed a contract for an Integrated Health Information Management System (IHIMS) that will lead to a one patient, one record system in the Bahamas. [2] In 2017, a government press release indicated that health professionals will be working "together with the designers of the new system over the next 12 to 18 months for the official implementation process" of the IHIMS. [3] In October 2019, Santa Rosa Consulting—"a private consulting firm on IT services for the healthcare industry, based in the United States"—reported that it had completed the first phase of IHIMS for the PHA. [4] Phase one included launching an IT platform, strengthening PHA's IT capabilities and infrastructure, standardizing best practice processes and planning and preparations to evaluate and select an EHR solution. [4] There is no more recent information available on the rollout of the IHIMS, including from the Ministry of Health. [5]

[1] Ministry of Health of the Bahamas. "About the Public Hospitals Authority". [<https://bit.ly/3aPac3G>]. Accessed 23 August 2020.

[2] Maura, M. of the Bahamas Information Services of the Government of the Bahamas. 9 August 2016. "Press Release - Universal Platform Establishes One Patient-One Record, Accessible Throughout the Public Health System".

[<https://bit.ly/2NrXdhs>]. Accessed 23 August 2020.

[3] Coakley, A. of the Bahamas Information Services of the Government of the Bahamas. 24 January 2017. "Press Release - Government Closer to Digitized Health Medical Records System With Seminar in Grand Bahama". [<https://bit.ly/2UIW6FZ>].

Accessed 23 August 2020.

[4] Santa Rosa Consulting. 10 October 2019. "Bahamas Hospitals Authority Enhances Systems and Processes with Help from Santa Rosa Consulting". [<https://www.santarosaconsulting.com/news-and-events/bahamas-hospitals-authority-enhances-systems-and-processes-with-help-from-santa-rosa-consulting/>]. Accessed 23 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 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 of data standards to ensure data is comparable, as electronic health records are not commonly in use in the Bahamas. However, there is evidence that the country is working towards common use of electronic health records. In 2012, the Ministry of Finance issued a request for information inviting qualified vendors to provide information regarding capabilities around a Healthcare Information System (HIS) and an Electronic Medical Record (EMR) information system. [1] A government press release in 2016 reported that the Ministry of Health and its Public Hospitals Authority signed a contract for an Integrated Health Information Management System (IHIMS) that will lead to a one patient, one record system in the Bahamas. [2] In 2017, a government press release indicated that health professionals will be working "together with the designers of the new system over the next 12 to 18 months for the official implementation process" of the IHIMS. [3] There is no more recent information available on the rollout of the IHIMS from the Ministry of Health. [4] There is no indication that the Caribbean Public Health Agency (CARPHA) has EHR commonly in use. [5] However, EHR has been a topic of interest for CARPHA as recently as June 2018, when a representative from the Pan American Health Organisation presented on effective implementation and the steady growth of electronic medical records over the past 15 years. [6]

[1] Public Hospitals Authority of the Commonwealth of The Bahamas. 3 February 2012 (Response Due). "Request for Information Healthcare Information System and Electronic Medical Record System".

[https://www.bahamas.gov.bs/wps/wcm/connect/184f50aa-63d0-4de3-b26a-5b0c1adf2eac/PHA++++RFI+for+HIS-EMR++%28Jan+10-12%29+FINAL.pdf?MOD=AJPERES&CONVERT_TO=url&CACHEID=184f50aa-63d0-4de3-b26a-5b0c1adf2eac]. Accessed 23 August 2020.

[2] Maura, M. of the Bahamas Information Services of the Government of the Bahamas. 9 August 2016. "Press Release - Universal Platform Establishes One Patient-One Record, Accessible Throughout the Public Health System".

[<https://bit.ly/2NrXdhs>]. Accessed 23 August 2020.

[3] Coakley, A. of the Bahamas Information Services of the Government of the Bahamas. 9 August 2016. "Press Release - Government Closer to Digitized Health Medical Records System With Seminar in Grand Bahama". [<https://bit.ly/2NrXdhs>]. Accessed 23 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA). [<http://carpha.org>]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA). "63rd Annual CARPHA Health Research Conference: June 14-16, 2018".

[<http://conference.carpha.org/Portals/0/Documents/CARPHA%202018%20WIMJ%20Supplement.pdf>]. Accessed 23 August 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 no evidence of established mechanisms at the relevant Bahamas ministries responsible for animal, human and wildlife surveillance to share data. In 2017, the first Surveillance and Vector Control Working Group was convened by the Caribbean Vector-Borne Diseases Network (CariVecNet), which includes the Bahamas and will act as an avenue for exchange of surveillance information on vector borne diseases. [1, 2] However, there is no evidence by CariVecNet that this exchange of information includes data sharing across relevant ministries. [3] In a 2013 workshop report from the Pan American Health Organisation of the Caribbean One Health, one project proposed for future development was the One Health approach to vector borne diseases, including strengthening surveillance and diagnostic capacity. [4] The Ministry of Health, Ministry of Agriculture, and Ministry of Environment make no mention of established mechanisms for sharing data across ministries. [5, 6, 7]

[1] Caribbean Public Health Agency (CARPHA). 2017. "Regional Experts Lay Groundwork for Unified Response to Vector-Borne Diseases". [<https://carpha.org/More/Media/Articles/ArticleID/179/Regional-Experts-Lay-Groundwork-for-Unified-Response-to-Vector-Borne-Diseases>]. Accessed 26 August 2020.

[2] Caribbean Vector Borne Disease Network (CariVectNet). "Working Groups". [<http://carivecnet.carpha.org/workinggroups>]. Accessed 26 August 2020.

[3] Caribbean Vector Borne Disease Network. (CariVectNet). [<http://carivecnet.carpha.org/>]. Accessed 26 August 2020.

[4] Pan American Health Organization. 2013. "One Health: From Ideas to Action".

[https://www.paho.org/trt/images/stories/PWR_TRT/one%20health%20workshop%20report.pdf?ua=1&ua=1]. Accessed 26 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 26 August 2020.

[6] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 26 August 2020.

[7] Ministry of Environment and Housing of the Bahamas. [<https://eh.gov.bs/>]. Accessed 26 August 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 insufficient evidence that the Bahamas makes de-identified health surveillance data on disease outbreaks publicly available on government websites. The Ministry of Health has provided de-identified surveillance data on COVID-19 through a public dashboard, updated on a daily basis, since February 27, 2020. [1] However, besides COVID-19 data, there is insufficient evidence that the government publicly shares regularly updated health surveillance data on infectious diseases. The Health Information and Research Unit of the Ministry of Health has published de-identified health surveillance data on

infectious diseases, but there is no indication that this information is updated regularly, and the most recent data is from 2010. [2] The Government's outline of steps for Outbreak Reports and Case Investigations for communicable diseases includes that reports should be "disseminated to all appropriate stakeholders" but does not mention dissemination to the public. [3, 4] The Bahamas has published health surveillance data on disease outbreaks through the Pan American Health Organization/World Health Organization (PAHO/WHO), such as an epidemiological report of zika cases in the country. [5] The Caribbean Public Health Agency (CARPHA) includes surveillance data from Bahamas in reports, such as cases of chikungunya and zika in the State of Public Health in the Caribbean 2014-2016, published in 2017. [6] There is no additional evidence from the Ministry of Health, Public Hospitals Authority, or Caribbean Public Health Agency. [7, 8, 9]

- [1] Ministry of Health of the Bahamas - Health Information and Research Unit. "Novel Coronavirus (2019-nCoV)". [<https://bit.ly/2EITQSQ>]. Accessed 26 August 2020.
- [2] Ministry of Health of the Bahamas - Health Information and Research Unit. "Communicable (Infectious) Disease". [<https://bit.ly/2VgDR1s>]. Accessed 26 August 2020.
- [3] Government of the Bahamas. "Outbreak Reports and Case Investigations". [<https://bit.ly/2GOkCse>]. Accessed 26 August 2020.
- [4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 26 August 2020.
- [5] Pan American Health Organization - World Health Organization (PAHO/WHO). "Zika-Epidemiological Report, Bahamas". [<https://www.paho.org/hq/dmdocuments/2017/2017-phe-zika-situation-report-bhm.pdf>]. Accessed 26 August 2020.
- [6] Caribbean Public Health Agency (CARPHA). 2017. "State of Public Health in the Caribbean 2014-2016". [<https://carpha.org/What-We-Do/Health-Information/State-of-Public-Health>]. Accessed 26 August 2020.
- [7] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 10 September 2020.
- [8] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 10 September 2020.
- [9] Caribbean Public Health Agency (CARPHA). [<https://carpha.org/>]. Accessed 10 September 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

The Bahamas makes de-identified COVID-19 surveillance data available via daily reports on a government website. The Bahamas Ministry of Health COVID-19 Dashboard has been updated daily since February 27, 2020 and includes information such as the number of confirmed, recovered, and active cases, deaths, and tests completed. [1, 2]

- [1] Ministry of Health of the Bahamas. [<https://bit.ly/2EITQSQ>]. Accessed 26 August 2020.
- [2] Ministry of Health of the Bahamas. 26 August 2020. "COVID19 Bahamas Dashboard". [<https://www.bahamas.gov.bs/wps/wcm/connect/ca02d087-8b1e-4c63-b13f-460e2aea461f/Ministry+of+Health+Dashboard+-+26th+August%2C+2020.jpg?MOD=AJPERES>]. Accessed 26 August 2020.

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 1

There is a law in the Bahamas that safeguards the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. The Data Protection (Privacy of Personal Information) Act of 2003 is intended to protect the privacy of individuals in collection, processing, and storage of personal data. [1] "Sensitive personal information" is defined in the Act to include data relating to physical or mental health. [1] According to the Act, appropriate security measures shall be taken to protect personal data. [1] There is no evidence provided by the Ministry of Health or the Office of the Data Protection Commissioner regarding confidentiality specific to health surveillance activities. [2, 3]

[1] Government of the Bahamas - Statute Law of the Bahamas. No. 3 of 2003. "Data Protection (Privacy of Personal Information) Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2003/2003-0003/DataProtectionPrivacyofPersonallInformationAct_1.pdf]. Accessed 20 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 20 August 2020.

[3] Office of the Data Protection Commissioner of the Bahamas. [<https://bit.ly/2DZW0JU>]. Accessed 20 August 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 that the law in the Bahamas that safeguards the confidentiality of identifiable health information includes mention of protections from cyber attacks. The Data Protection (Privacy of Personal Information) Act of 2003 is intended to protect the privacy of individuals in collection, processing, and storage of personal data. [1] "Sensitive personal information" is defined in the Act to include data relating to physical or mental health, and according to the Act, appropriate security measures shall be taken to protect personal data, but there is no specific mention of protections from cyber attacks. [1] In 2014 the Ministry of National Security held a National Cyber Security Strategy meeting and in a press release from May 2018 the Minister of National Security indicated that the country plans to develop a National Cyber Security Strategy to fortify the country's data protection capability. [2, 3] The Bahamas ranks 129 out of 165 on the 2017 International Telecommunications Union Global Cybersecurity Index. [4] The Ministry of Health or the Office of the Data Protection Commissioner do not provide information on cybersecurity. [5, 6]

[1] Government of the Bahamas - Statute Law of the Bahamas. No. 3 of 2003. "Data Protection (Privacy of Personal Information) Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2003/2003-0003/DataProtectionPrivacyofPersonallInformationAct_1.pdf]. Accessed 23 August 2020.

[2] International Telecommunications Union. 2017. "Global Cybersecurity Index (GCI) 2017". [https://www.itu.int/dms_pub/itu-d/opb/str/d-str-gci.01-2017-pdf-e.pdf]. Accessed 23 August 2020.

[3] Ministry of National Security of the Bahamas. "National Cyber Security Strategy Workshop". [<https://bit.ly/2Vkb6B7>]. Accessed 23 August 2020.

[4] Rose, E. of the Bahamas Information Services of the Government of the Bahamas. 11 May 2018. "Press Release - Minister Dames: Bahamas not Immune to Cyber Crimes". [<https://bit.ly/2E8uSbL>]. Accessed 23 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[6] Office of the Data Protection Commissioner of the Bahamas. [<https://bit.ly/2DZW0JU>]. Accessed 23 August 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 publicly available evidence that the government of the Bahamas has made a commitment via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region for one or more diseases. The Bahamas is a Member State of the Caribbean Public Health Agency (CARPHA), which—according to Article 5 of the Agreement Establishing CARPHA—states that CARPHA's functions include provision of accurate, reliable, timely and relevant public health information to "various Caribbean and international audiences". [1] A July 2020 CARPHA Situation Report on the COVID-19 pandemic in the region includes data from the Bahamas. [2] However, there is no evidence that a CARPHA information sharing agreement was created, and there is no evidence of such a commitment through the Ministry of Health. [3]

[1] Caribbean Public Health Agency (CARPHA). 2011. "Agreement Establishing the Caribbean Public Health Agency (CARPHA)". [<https://caricom.org/documents/legaldocuments/10375-carpha-iga.pdf>]. Accessed 26 August 2020.

[2] Caribbean Public Health Agency (CARPHA). 31 July 2020. "CARPHA Situation Report No. 77 - Coronavirus Disease (COVID-19) Pandemic". [<https://carpha.org/Portals/0/Documents/COVID%20Situation%20Reports/Situation%20Report%2077%20-%20July%2031,%202020.pdf>]. Accessed 26 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 26 August 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: 1

There is evidence that the Bahamas has a national system in place to provide support at the sub-national level to conduct contact tracing in the event of an active public health emergency, but there is no evidence that such a system is in place for future public health emergencies. In July 2020, the Government of the Bahamas announced a partnership with the Pan-American Health Organization (PAHO) and the University of The Bahamas to establish a contact tracing training course. [1] An August 2020 press release from the Bahamas Information Services reported an official stating that "In response to the second wave, 62 volunteers were recruited and 76 health staff re-assigned to carry out contact tracing on New Providence, Grand Bahama and the Family Islands," indicating a system of support to conduct contact tracing at the sub-national level. [2] An August 2020 COVID-19 situation report from the Pan American Health Organization states that the Bahamas had set up a Contact Tracing Command Centre and the presence of a Contact Tracing Task Force. [3] There is evidence that the country

conducts contact tracing for tuberculosis. [4] However, there is no further detail available on a contact tracing plans in place for future public health emergencies, including through the Ministry of Health and the Public Hospitals Authority. [5, 6] In 2015, the Caribbean Public Health Agency (CARPHA) held a workshop on Strengthening Caribbean Regional Health Security, Preparedness and Response, which focused on contact tracing, but there is no detail on the Bahamas' involvement. [7]

- [1] The Government of the Bahamas. 2 July 2020. "MOH Enters Partnership with PAHO and UB to Enhance Its Surveillance Activities for Contact Tracing". [<https://bit.ly/3b2bVrc>]. Accessed 27 August 2020.
- [2] The Government of the Bahamas. 25 August 2020. "Contact Tracing is a Critical Element to Reducing the Spread of COVID-19". [<https://bit.ly/3ktqAR4>]. Accessed 28 February 2021.
- [3] Pan American Health Organization (PAHO). 14 August 2020. "Situation in The Bahamas and Turks and Caicos Islands 14th August 2020". [<https://www.paho.org/en/documents/covid-19-bahamas-and-turks-and-caicos-islands-situation-report-august-14th-2020>]. Accessed 28 February 2021.
- [4] The Government of the Bahamas. "Tuberculosis (TB) Contact Tracing". [<https://bit.ly/2EGwq0H>]. Accessed 27 August 2020.
- [5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.
- [6] Public Hospitals Authority. [<http://www.phabahamas.org/>]. Accessed 27 August 2020.
- [7] Caribbean Public Health Agency (CARPHA). 25 July 2015. "Workshop on Contact Tracing held by CARPHA to Strengthen Caribbean Health Security." [<https://carpha.org/More/Media/Articles/ArticleID/118>]. Accessed 27 August 2020.

2.5.1b

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

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

Current Year Score: 0

There is no evidence that the Bahamas provides wraparound services—neither economic support nor medical attention—to enable infected people and their contacts to self-isolate or quarantine as recommended. The government provides assistance due to economic impacts of COVID-19, including food vouchers and other forms of social support. [1, 2] However, there is no evidence that these include wraparound services to enable cases and suspected cases to self-isolate. In March 2020, the Public Hospitals Authority announced measures being implemented following the first confirmed case of COVID-19 in the Bahamas, including recommended self-isolation for those experience flu-like symptoms, but there is no mention of wraparound services. [3] There is no evidence of wraparound services available for the Bahamas through the Ministry of Health, regional Caribbean Community (CARICOM) or Caribbean Public Health Agency (CARPHA). [4, 5, 6]

- [1] Ministry of Social Services and Urban Development. "Who is eligible for assistance due to the COVID-19 economic fall out?". [<https://bit.ly/2G4O8LP>]. Accessed 27 August 2020.
- [2] Ministry of Social Services and Urban Development. "Have you been placed on reduced work weeks by your employer?". [<https://bit.ly/2ZOQuIN>]. Accessed 27 August 2020.
- [3] The Government of the Bahamas. "PHA implements safety measures following confirmed case of Coronavirus (COVID-19)". [<https://bit.ly/2YLhGVf>]. Accessed 27 August 2020.
- [4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.
- [5] Caribbean Community (CARICOM). [<https://caricom.org/>]. Accessed 27 August 2020.
- [6] Caribbean Public Health Agency (CARPHA). [<https://carpha.org>]. Accessed 27 August 2020

2.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that the Bahamas makes de-identified data on contact tracing efforts for COVID-19 available via daily reports on government websites. The Bahamas Ministry of Health COVID-19 Dashboard has been updated daily since February 27, 2020 and includes information such as the number of confirmed, recovered, and active cases, deaths, and tests completed. [1, 2] However, the daily reports do not include de-identified data on contact tracing efforts for COVID-19. In an update from the Minister of Health in early April 2020, contact tracing was said to be a priority and on-going activity conducted by the Surveillance Team. [3] In July 2020, the Government of the Bahamas announced a partnership with the Pan-American Health Organization (PAHO) and the University of The Bahamas to establish a contact tracing training course. [4] In August 2020, a government representative reported that public health experts have engaged and followed up with close to 4,000 contacts of confirmed cases. [5] However, there is no additional evidence of de-identified data on contact tracing efforts for COVID-19 via daily reports available through the Ministry of Health. [6]

[1] Ministry of Health of the Bahamas. [<https://bit.ly/2EITQSQ>]. Accessed 26 August 2020.

[2] Ministry of Health of the Bahamas. 26 August 2020. "COVID19 Bahamas Dashboard".

[<https://www.bahamas.gov.bs/wps/wcm/connect/ca02d087-8b1e-4c63-b13f-460e2aea461f/Ministry+of+Health+Dashboard+-+26th+August%2C+2020.jpg?MOD=AJPERES>]. Accessed 26 August 2020.

[3] The Government of the Bahamas. 6 April 2020. "Minister of Health Provides Update on The Bahamas' Response to COVID-19". [<https://bit.ly/2QvWy0L>]. Accessed 26 August 2020.

[4] The Government of the Bahamas. 2 July 2020. "MOH Enters Partnership with PAHO and UB to Enhance Its Surveillance Activities for Contact Tracing". [<https://bit.ly/3b2bVrc>]. Accessed 26 August 2020.

[5] The Government of the Bahamas. 25 August 2020. "Contact Tracing is a Critical Element to Reducing the Spread of COVID-19". [<https://bit.ly/34GRJKm>]. Accessed 26 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 26 August 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 1

There is evidence of a joint plan or cooperative agreement between the Bahamas' 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 an active public health emergency.

As of July 2020, the protocol for entry to the Bahamas for COVID-19 precautions states that those entering the country must install a phone application for purposes of contact tracing by the COVID Enforcement Unit. [1] No additional evidence of a

joint plan in place as the basis for trace and quarantine protocols, including through the Ministry of Health, Ministry of Foreign Affairs, Ministry of National Security, and Public Hospitals Authority. [2, 3, 4, 5] There is no evidence of a joint plan or cooperative agreement available through the Caribbean Community (CARICOM) or Caribbean Public Health Agency (CARPHA). [6, 7]

[1] The Islands of the Bahamas. 30 July 2020. "Protocols For Entry To The Bahamas."

[https://www.bahamas.com/pressroom/protocols-entry-bahamas]. Accessed 27 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[3] Ministry of Foreign Affairs of the Bahamas. [https://mofa.gov.bs/]. Accessed 27 August 2020.

[4] Ministry of National Security of the Bahamas. [http://www.bahamas.gov.bs/nationalsecurity/]. Accessed 27 August 2020.

[5] Public Hospitals Authority of the Bahamas. [http://www.phabahamas.org/]. Accessed 27 August 2020.

[6] Caribbean Community (CARICOM) Today. [https://caricom.org/]. Accessed 27 August 2020.

[7] Caribbean Public Health Agency (CARPHA). [https://carpha.org]. Accessed 27 August 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

The Bahamas has an applied epidemiology program, as part of the Caribbean Public Health Agency (CARPHA). The Caribbean Regional Field Epidemiology and Laboratory Training Programme (CR-FELTP) offers "a core curriculum of competency-based classroom learning and on-the-job training, to develop field epidemiology skills and tools to respond to public health issues in the Caribbean through surveillance, outbreak investigation, and operational research and analysis". [1] CR-FELTP Country Coordinators coordinate in-country training courses and sessions, though there is no evidence of where recent trainings have been held. [2] A mid-term budget review posted by the Bahamas Information Services in 2016 indicated that the Ministry of Health conducted CR-FELTP Level 1 training sessions, but there is no mention of resources to send citizens to another country. [3] There is no further detail about CR-FELTP available from CARPHA or the Ministry of Health, and there is no indication by CARPHA or the Ministry of Health that resources are provided by the government to send citizens to another country to participate in the program. [4, 5]

[1] Caribbean Public Health Agency (CARPHA). "FELTP - What is FELTP?". [https://carpha.org/What-We-Do/FELTP/Introduction]. Accessed 23 August 2020.

[2] Caribbean Public Health Agency (CARPHA). "CARPHA's Role: Coordinating the CR-FELTP". [https://carpha.org/What-We-Do/FELTP/Overview]. Accessed 23 August 2020.

[3] Bahamas Information Services of the Government of the Bahamas. 24 March 2016. "Bahamas Minister of Health 2015/2016 Mid-Term Budget Review Debate?". [http://www.thebahamasweekly.com/publish/bis-news-

updates/Minister_of_Health_Contribution_to_the_2015_2016_Mid-Term_Budget_Review_Debate47441.shtml]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA). [<http://carpha.org>]. Accessed 23 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no indication that the available field epidemiology training programs explicitly inclusive of animal health professionals, and there is no specific animal health field epidemiology training program offered. The Field Epidemiology and Laboratory Training Programme (FELTP) of the Caribbean Public Health Agency does not mention animal health, nor animal health professionals. [1] There is no indication of a field epidemiology training inclusive of animal health professionals by the Ministry of Health or Ministry of Agriculture. [2, 3]

[1] Caribbean Public Health Agency (CARPHA). "Field Epidemiology and Laboratory Training Programme (FELTP) - Structure". [<http://carpha.org/what-we-do/feltp/structure>]. Accessed 23 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 23 August 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 0

There is insufficient evidence that the Bahamas has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. The Caribbean Tourism Organization mentions that the country has a Emergency Preparedness and Response Plan and the Bahamas National Preparedness and Response Plan for COVID-19. However, these plans are not publicly available, including through the Government website, and it is not clear if it includes response actions for the health system or only for the tourism industry. [1, 2] The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards. [3] Hurricanes and tsunami threats are the only types of disasters listed by NEMA; there is no mention of preparedness and response for public health emergencies. [4] The Disaster Preparedness and Response Act of 2006 states that an annual National Disaster Preparedness and Response Plan shall be prepared and will include procedures for safeguarding against fire and epidemics during a threatened disaster. [5] However, there is no publicly available evidence of such a plan through NEMA or the Ministry of Health. [4, 6] The Bahamas is part of the Caribbean Disaster Emergency Management Agency (CDEMA) for disaster management in the Caribbean Community (CARICOM). [5] CDEMA's mandate includes "coordinating the establishment, enhancement and maintenance of adequate emergency disaster response capabilities among the Participating States". [8] Health emergency preparedness and response is one of the functions of the Caribbean Public Health Agency (CARPHA), but there is no evidence of a regional public health emergency response plan. [9]

[1] Caribbean Tourism Organization. "Bahamas Ministry of Tourism & Aviation Statement On COVID-19".

[<https://www.onecaribbean.org/bahamas-ministry-of-tourism-aviation-statement-on-covid-19/>]. Accessed 27 August 2020.

[2] Government of the Bahamas. [<http://www.bahamas.gov.bs/>]. Accessed 27 August 2020.

[3] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency".

[<https://bit.ly/2shrzte>]. Accessed 27 August 2020.

[4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 27 August 2020.

[5] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 27 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[7] Caribbean Disaster Emergency Management Agency (CDEMA). "About Us". [<https://www.cdema.org/about-us>]. Accessed 27 August 2020.

[8] Caribbean Disaster Emergency Management Agency (CDEMA). "What is CDEMA's Mandate?".

[<https://www.cdema.org/about-us#what-is-cdema-s-mandate>]. Accessed 27 August 2020.

[9] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)".

[<https://carpha.org/Who-We-Are/Role-and-Function>]. Accessed 27 August 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 the Bahamas has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. The Caribbean Tourism Organization mentions the country's Emergency Preparedness and Response Plan and the Bahamas National Preparedness and Response Plan for COVID-19, but these plans are not publicly available, including through the Government website. [1, 2] The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards. [3] Hurricanes and tsunami threats are the only types of disasters listed by NEMA; there is no mention of preparedness and response for public health emergencies. [4] The Disaster Preparedness and Response Act of 2006 states that an annual National Disaster Preparedness and Response Plan shall be prepared and include procedures for safeguarding against fire and epidemics during a threatened disaster. [5] However, there is no publicly available evidence of such a plan through NEMA or the Ministry of Health. [4, 6] The Bahamas is part of the Caribbean Disaster Emergency Management Agency (CDEMA) for disaster management in the Caribbean Community (CARICOM). [5] CDEMA's mandate includes "coordinating the establishment, enhancement and maintenance of adequate emergency disaster response capabilities among the Participating States". [8] Health emergency preparedness and response is one of the functions of the Caribbean Public Health Agency (CARPHA), but there is no evidence of a regional public health emergency response plan. [9]

[1] Caribbean Tourism Organization. "Bahamas Ministry of Tourism & Aviation Statement On COVID-19".

[<https://www.onecaribbean.org/bahamas-ministry-of-tourism-aviation-statement-on-covid-19/>]. Accessed 27 August 2020.

[2] Government of the Bahamas. [<http://www.bahamas.gov.bs/>]. Accessed 27 August 2020.

[3] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency".

[<https://bit.ly/2shrzte>]. Accessed 27 August 2020.

[4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 27 August 2020.

[5] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 27 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[7] Caribbean Disaster Emergency Management Agency (CDEMA). "About Us". [<https://www.cdema.org/about-us>]. Accessed 27 August 2020.

[8] Caribbean Disaster Emergency Management Agency (CDEMA). "What is CDEMA's Mandate?".

[<https://www.cdema.org/about-us#what-is-cdema-s-mandate>]. Accessed 27 August 2020.

[9] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)".

[<https://carpha.org/Who-We-Are/Role-and-Function>]. Accessed 27 August 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 the Bahamas has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. The Caribbean Tourism Organization mentions the country's Emergency Preparedness and Response Plan and the Bahamas National Preparedness and Response Plan for COVID-19, but these plans are not publicly available, including through the Government website. [1, 2] The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards. [3] Hurricanes and tsunami threats are the only types of disasters listed by NEMA; there is no mention of preparedness and response for public health emergencies. [4] The Disaster Preparedness and Response Act of 2006 states that an annual National Disaster Preparedness and Response Plan shall be prepared and include procedures for safeguarding against fire and epidemics during a threatened disaster. [5] However, there is no publicly available evidence of such a plan through NEMA or the Ministry of Health. [4, 6] The Bahamas is part of the Caribbean Disaster Emergency Management Agency (CDEMA) for disaster management in the Caribbean Community (CARICOM). [5] CDEMA's mandate includes "coordinating the establishment, enhancement and maintenance of adequate emergency disaster response capabilities among the Participating States". [8] Health emergency preparedness and response is one of the functions of the Caribbean Public Health Agency (CARPHA), but there is no evidence of a regional public health emergency response plan. [9]

[1] Caribbean Tourism Organization. "Bahamas Ministry of Tourism & Aviation Statement On COVID-19".

[<https://www.onecaribbean.org/bahamas-ministry-of-tourism-aviation-statement-on-covid-19/>]. Accessed 27 August 2020.

[2] Government of the Bahamas. [<http://www.bahamas.gov.bs/>]. Accessed 27 August 2020.

[3] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency".

[<https://bit.ly/2shrzte>]. Accessed 27 August 2020.

[4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 27 August 2020.

[5] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act".

[http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 27 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[7] Caribbean Disaster Emergency Management Agency (CDEMA). "About Us". [<https://www.cdema.org/about-us>]. Accessed 27 August 2020.

[8] Caribbean Disaster Emergency Management Agency (CDEMA). "What is CDEMA's Mandate?".

[<https://www.cdema.org/about-us#what-is-cdema-s-mandate>]. Accessed 27 August 2020.

[9] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)".

[<https://carpha.org/Who-We-Are/Role-and-Function>]. Accessed 27 August 2020.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the Bahamas has a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards, but there is no indication that NEMA covers preparedness and response for public health emergencies. [1] The Disaster Preparedness and Response Act of 2006 states that an annual National Disaster Preparedness and Response Plan shall be prepared and include procedures for safeguarding against fire and epidemics during a threatened disaster. [2] According to the Act, the NEMA Director shall liaison with the private sector to carry out the objectives of the Plan. [2] However, there is no publicly available evidence of a plan or private sector engagement around outbreak emergency preparedness and response through NEMA or the Ministry of Health, including the webpage on Outbreak Reports and Case Investigations. [3, 4, 1] The Caribbean Disaster Emergency Management Agency (CDEMA) mentions involvement of the private sector, but there is no evidence of a specific mechanism for engagement from either agency. [5] There is no evidence that the Caribbean Public Health Agency (CARPHA) involves the private sector in assisting with outbreak emergency preparedness and response. [6]

[1] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency". [<https://bit.ly/2shrzte>]. Accessed 27 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 27 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[4] Government of the Bahamas. "Outbreak Reports and Case Investigations". [<https://bit.ly/2GOkCse>]. Accessed 27 August 2020.

[5] Caribbean Disaster Emergency Management Agency (CDEMA). 2017. "CDEMA News". Vol. 3, Iss. 1. [https://www.cdema.org/CDEMANewsletter-iss1_2017.pdf]. Accessed 27 August 2020.

[6] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 27 August 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

The Bahamas has guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic, but only for COVID-19. In April 2020, the Prime Minister described requirements for the public to practice physical distancing and wear a protective face masks at all times. [1] The Ministry of Health published Workplace Guidelines During COVID-19 that include NPIs with specific criteria outlined for when NPIs are implemented. [2] There is no evidence of a policy, plan, or guidelines in place for implementing NPIs during an epidemic or pandemic for other diseases available through the Ministry of Health or Government of the Bahamas website. [3, 4]

[1] Government of the Bahamas - Office of the Prime Minister. 19 April 2020. "Update on COVID-19 Response". [https://www.bahamas.gov.bs/wps/wcm/connect/90b601ef-4bf1-4bc0-931f-9e5dbceb0c9d/Prime+Minister+Minnis+-+COVID-19+Update+Press+Conference+April+19+2020.pdf?MOD=AJPERES]. Accessed 27 August 2020.

[2] Ministry of Health of the Bahamas. 22 July 2020. "Workplace Guidelines During COVID-19". [https://www.bahamas.gov.bs/wps/wcm/connect/bc135f6a-cba9-45f0-84ed-ee29c5c3443c/MoH+COVID-19+Workplace+Reopening+Guidelines+%26+Assessment+v9+%5B23.7.2020%5D+%283%29.pdf?MOD=AJPERES]. Accessed 27 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[4] Government of the Bahamas. [http://www.bahamas.gov.bs/]. Accessed 27 August 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

- Is there evidence that the country has activated their national emergency response plan for an infectious disease outbreak in the past year?
- Is there evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year?

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

Current Year Score: 0

There is insufficient evidence that the Bahamas has activated their national emergency response plan for an infectious disease outbreak in the past year, and there is insufficient evidence that the country has completed a national-level biological threat-focused exercise in the past year. The Caribbean Tourism Organization mentions the country's Emergency Preparedness and Response Plan and the Bahamas National Preparedness and Response Plan for COVID-19, but these plans are not publicly available, including through the Government website, to confirm what this plan contains. [1, 2] According to a 2020 CARPHA COVID-19 pandemic response situation report, CARPHA activated its Incident Management Team-Emergency Response (IMT-ER) in January 2020, but there is no publicly available documentation of what the IMT-ER entails. [10] In 2014, the Ministry of National Security held The Crisis Management Workshop and Simulation Exercise on Bio terrorism, but there is no evidence of such an exercise since 2014. [11] There is no evidence of a national-level biological threat-focused exercise through the World Health Organization, NEMA, or the Ministry of Health in the past year. [12, 4, 6] The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards. [3] Hurricanes and tsunami threats are the only types of disasters listed by NEMA; there is no mention of preparedness and response for public health emergencies. [4] The Disaster Preparedness and Response Act of 2006 states that an annual National Disaster Preparedness and Response Plan shall be prepared and include procedures for safeguarding against fire and epidemics during a threatened disaster. [5] However, there is no publicly

available evidence of such a plan through NEMA or the Ministry of Health. [4, 6] The Bahamas is part of the Caribbean Disaster Emergency Management Agency (CDEMA) for disaster management in the Caribbean Community (CARICOM). [5] CDEMA's mandate includes "coordinating the establishment, enhancement and maintenance of adequate emergency disaster response capabilities among the Participating States". [8] Health emergency preparedness and response is one of the functions of the Caribbean Public Health Agency (CARPHA), but there is no evidence of a regional public health emergency response plan. [9]

- [1] Caribbean Tourism Organization. "Bahamas Ministry of Tourism & Aviation Statement On COVID-19". [<https://www.onecaribbean.org/bahamas-ministry-of-tourism-aviation-statement-on-covid-19/>]. Accessed 27 August 2020.
- [2] Government of the Bahamas. [<http://www.bahamas.gov.bs/>]. Accessed 27 August 2020.
- [3] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency". [<https://bit.ly/2shrzte>]. Accessed 27 August 2020.
- [4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 27 August 2020.
- [5] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 27 August 2020.
- [6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.
- [7] Caribbean Disaster Emergency Management Agency (CDEMA). "About Us". [<https://www.cdema.org/about-us>]. Accessed 27 August 2020.
- [8] Caribbean Disaster Emergency Management Agency (CDEMA). "What is CDEMA's Mandate?". [<https://www.cdema.org/about-us#what-is-cdema-s-mandate>]. Accessed 27 August 2020.
- [9] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)". [<https://carpha.org/Who-We-Are/Role-and-Function>]. Accessed 27 August 2020.
- [10] Caribbean Public Health Agency (CARPHA). 2020. "Commemorating the CARPHA 100th situation report: CARPHA COVID-19 pandemic response." [<https://carpha.org/Portals/0/Publications/CARPHA%20COVID-19%20Response%20Interactive%20Document.pdf?ver=2020-10-13-094823-237×tamp=1602597124663>]. Accessed 7 March 2021.
- [11] Ministry of National Security of the Bahamas. 18 February 2014. "Minister Nottage opens 'The Crisis Management Workshop and Simulation Exercise on Bio Terrorism'". [<https://bit.ly/31EOt0f>]. Accessed 27 August 2020.
- [12] World Health Organization, Strategic Partnership for International Health Regulations and Health Security. "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 27 August 2020.

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 the Bahamas has planned or undergone an exercise to identify a list of gaps and best practices in response to infectious disease or a biological-threat and there is no evidence of a published or unpublished plan on the matter. The Bahamas does not appear on the World Health Organization's (WHO) list of after action reviews, and there is no indication of an after action review on the WHO country and regional page. [1, 2, 3] No indication of an after action review or

a biological threat-focused IHR was found through the Ministry of Health or Ministry of Agriculture. [4, 5]

[1] World Health Organization (WHO). "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH) - After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 28 August 2020.

[2] Pan American Health Organization / World Health Organization (WHO) - Regional Office for the Americas. [<https://www.paho.org/hq/index.php?lang=en>]. Accessed 28 August 2020.

[3] World Health Organization (WHO). "Bahamas". [<https://www.who.int/countries/bhs/en/>]. Accessed 28 August 2020.

[4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.

[5] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 28 August 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 the Bahamas has undergone a national-level biological threat-focused exercise that has included private sector representatives in the past year. In 2014, the Ministry of National Security held The Crisis Management Workshop and Simulation Exercise on Bio terrorism, but there is no evidence of such an exercise since 2014, and there is no mention of involvement from private sector representatives. [1] There is no evidence of a national-level biological threat-focused exercise through the World Health Organization, NEMA, or the Ministry of Health in the past year. [2, 3, 4]

[1] Ministry of National Security of the Bahamas. 18 February 2014. "Minister Nottage opens 'The Crisis Management Workshop and Simulation Exercise on Bio Terrorism'". [<https://bit.ly/31E0t0f>]. Accessed 28 August 2020.

[2] World Health Organization, Strategic Partnership for International Health Regulations and Health Security. "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 28 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.

[4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 28 August 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: 1

The Bahamas has in place an Emergency Operations Center (EOC). The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards, and NEMA operates the country's EOC. [1] According to Section 9 of the Disaster Preparedness and Response Act, the NEMA Director is responsible for the establishment and maintenance of a national EOC, the headquarters for

coordinating disaster emergency response. [2] Although Section 9 does not specify types of emergencies addressed by the EOC, Part III of the Act lists the Ministry responsible for public health as part of the NEMA Advisory Committee and states that an annual National Disaster Preparedness and Response Plan shall be prepared and include procedures for safeguarding against epidemics during a threatened disaster. [2] There is no evidence that the Caribbean Disaster Emergency Management Agency (CDEMA) has an EOC in place, however CDEMA provides training for national EOCs. [3] There is no evidence that the Caribbean Public Health Agency has an EOC in place. [4]

[1] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency". [https://bit.ly/2shrzte]. Accessed 23 August 2020.

[2] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 23 August 2020.

[3] Caribbean Disaster Emergency Management Agency (CDEMA). "Emergency Operations Center Training 19th - 21st October, 2015". [https://www.cdema.org/index.php?option=com_content&view=article&id=1532:emergency-operations-center-training-19th-21st-october-2015&catid=58:turks-and-caicos-islands&Itemid=284]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA). [http://carpha.org/]. Accessed 23 August 2020.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Emergency Operations Center in the Bahamas is required to conduct a drill at least once per year, and there is no evidence that they conduct a drill at least once per year. The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards—though there is no specific mention of public health emergencies—and NEMA operates the country's EOC. [1] NEMA provides operations/management training for the EOC, but there is no further information on what this training entails. [1] In March 2018, through NEMA, the Bahamas participated in a regional simulation Tsunami Readiness Exercise, in which the NEMOC was activated. [2] However, there is no indication by NEMA, the Disaster Preparedness and Response Act of 2006, or the Ministry of Health that this exercise or any other drill is conducted at least annually. [1, 3, 4] A Pan American Health Organization (PAHO) report from April 2020 on COVID-19 response mentioned "[t]he Bahamas team is working within the national emergency operations center (EOC) where it disseminates PAHO guidelines and provides hands-on support," but no further details are available. [5] The PAHO has an EOC that "functions as a centralized location for coordination and control of health-related emergency response activities." [6] There is no evidence that the Caribbean Disaster Emergency Management Agency (CDEMA) has an EOC in place, however CDEMA provides training for national EOCs. [7] Additionally, the CDEMA Agreement for Participating States indicates that drills and simulations should be used to establish and strengthen disaster preparedness procedures, but this is not stated as a requirement nor is there mention of frequency. [8] The latest available CDEMA annual report is from 2013-2014. [9] There is no evidence that the Caribbean Public Health Agency has an EOC in place. [10]

[1] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency". [https://bit.ly/2shrzte]. Accessed 28 August 2020.

[2] National Emergency Management Agency (NEMA) of the Bahamas. 19 March 2018. "Featured Story - NEMA took Bahamas through Regional Tsunami Test Exercise". [https://bit.ly/2T1Va9I]. Accessed 28 August 2020.

[3] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act".

- [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 28 August 2020.
- [4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.
- [5] Pan American Health Organization. 6 April 2020. "PAHO/WHO Response - COVID-19". [<https://www.paho.org/en/file/62576/download?token=qwGH1mhN>]. Accessed 28 August 2020.
- [6] Pan American Health Organization - Health Emergencies. "Emergency Operations Center". [https://www.paho.org/disasters/index.php?option=com_content&view=article&id=642:emergency-operations-center&Itemid=867&lang=en]. Accessed 28 August 2020.
- [7] Caribbean Disaster Emergency Management Agency (CDEMA). "Emergency Operations Center Training 19th - 21st October, 2015". [https://www.cdema.org/index.php?option=com_content&view=article&id=1532:emergency-operations-center-training-19th-21st-october-2015&catid=58:turks-and-caicos-islands&Itemid=284]. Accessed 28 August 2020.
- [8] Caribbean Disaster Emergency Management Agency (CDEMA). 2008. "Agreement Establishing the Caribbean Disaster Emergency Management Agency (CDEMA)". [https://www.cdema.org/cdema_agreement_final.pdf]. Accessed 28 August 2020.
- [9] Caribbean Disaster Emergency Management Agency (CDEMA). "Annual Reports". [<https://www.cdema.org/about-us>]. Accessed 28 August 2020.
- [10] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 28 August 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence to show that the Bahamas' National Emergency Operations Center can conduct, or has conducted within the last year, a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario. The National Emergency Management Agency (NEMA) is responsible for disaster preparedness and response to counteract the impact of natural, manmade and technological hazards—though there is no specific mention of public health emergencies—and NEMA operates the country's EOC. [1] NEMA provides operations/management training for the EOC, but there is no further information on what this training entails. [1] In March 2018, through NEMA, the Bahamas participated in a regional simulation Tsunami Readiness Exercise, in which the NEMA was activated. [2] However, there is no indication by NEMA, the Disaster Preparedness and Response Act of 2006, or the Ministry of Health that this exercise or any other drill is conducted at least annually. [1, 3, 4] A Pan American Health Organization (PAHO) report from April 2020 on COVID-19 response mentioned "[t]he Bahamas team is working within the national emergency operations center (EOC) where it disseminates PAHO guidelines and provides hands-on support," but no further details are available. [5] The PAHO has an EOC that "functions as a centralized location for coordination and control of health-related emergency response activities." [6] There is no evidence that the Caribbean Disaster Emergency Management Agency (CDEMA) has an EOC in place, however CDEMA provides training for national EOCs. [7] Additionally, the CDEMA Agreement for Participating States indicates that drills and simulations should be used to establish and strengthen disaster preparedness procedures, but this is not stated as a requirement nor is there mention of frequency. [8] The latest available CDEMA annual report is from 2013-2014. [9] There is no evidence that the Caribbean Public Health Agency has an EOC in place. [10]

[1] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency". [<https://bit.ly/2shrzte>]. Accessed 28 August 2020.

[2] National Emergency Management Agency (NEMA) of the Bahamas. 19 March 2018. "Featured Story - NEMA took

- Bahamas through Regional Tsunami Test Exercise". [<https://bit.ly/2T1Va9J>]. Accessed 28 August 2020.
- [3] Government of the Bahamas - Statute Law of the Bahamas. No. 4 of 2006. "Disaster Preparedness and Response Act". [http://laws.bahamas.gov.bs/cms/images/LEGISLATION/PRINCIPAL/2006/2006-0004/DisasterPreparednessandResponseAct_1.pdf]. Accessed 28 August 2020.
- [4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.
- [5] Pan American Health Organization. 6 April 2020. "PAHO/WHO Response - COVID-19". [<https://www.paho.org/en/file/62576/download?token=qwGH1mhN>]. Accessed 28 August 2020.
- [6] Pan American Health Organization - Health Emergencies. "Emergency Operations Center". [https://www.paho.org/disasters/index.php?option=com_content&view=article&id=642:emergency-operations-center&Itemid=867&lang=en]. Accessed 28 August 2020.
- [7] Caribbean Disaster Emergency Management Agency (CDEMA). "Emergency Operations Center Training 19th - 21st October, 2015". [https://www.cdema.org/index.php?option=com_content&view=article&id=1532:emergency-operations-center-training-19th-21st-october-2015&catid=58:turks-and-caicos-islands&Itemid=284]. Accessed 28 August 2020.
- [8] Caribbean Disaster Emergency Management Agency (CDEMA). 2008. "Agreement Establishing the Caribbean Disaster Emergency Management Agency (CDEMA)". [https://www.cdema.org/cdema_agreement_final.pdf]. Accessed 28 August 2020.
- [9] Caribbean Disaster Emergency Management Agency (CDEMA). "Annual Reports". [<https://www.cdema.org/about-us>]. Accessed 28 August 2020.
- [10] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 28 August 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

There is insufficient evidence that public health and national security authorities in the Bahamas have carried out an exercise to respond to a potential deliberate biological event. There is no evidence of publicly available agreements between the public health and security authorities to respond to a potential deliberate biological event. In 2014, the Pan American Health Organization helped host a workshop and simulation exercise on bioterrorism in the Bahamas, which covered topics such as disaster management in the health sector and bioterrorism and International Cooperation of PAHO. [1] The workshop was opened by the Minister of National Security, but there is no other evidence of involvement from public health and national security authorities. [1, 2] In 2017, the Caribbean Public Health Agency (CARPHA), of which the Bahamas is a Member State, participated in a training exercise aimed at improving regional responses during an emergency situation and coordination between relevant agencies, however, no information could be found on whether this included exercise related to a potential deliberate biological event. [3] In March 2010 the Government of Trinidad and Tobago carried out a simulation exercise for a bio-terrorism incident; Exercise Bio-Shield, which attempted to identify gaps in the national response to biological attacks

and determine ways to strengthen this mechanism. [4] Several other Caribbean countries, including the Bahamas, joined the Exercise Bio-Shield training on the second day, but there is no evidence that public health and national security authorities of the Bahamas participated. [5] There is no evidence of publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event by the Ministry of Health, the National Emergency Management Agency (NEMA), or Ministry of National Security. [6, 7, 8]

[1] Pan American Health Organization/World Health Organization (PAHO/WHO). 8 May 2019. "PAHO Supports Crisis Management Workshop/Simulation Exercise on Bioterrorism in Nassau, The Bahamas, 19th through 21st February, 2014". [https://www.paho.org/bah/index.php?option=com_content&view=article&id=123:paho-supports-crisis-management-workshop-bioterrorism-nassau-bahamas-19-21-february-2014&Itemid=221]. Accessed 28 August 2020.

[2] Ministry of National Security of the Bahamas. 18 February 2014. "Minister Nottage opens 'The Crisis Management Workshop and Simulation Exercise on Bio Terrorism'". [https://bit.ly/31E0t0f]. Accessed 28 August 2020.

[3] Caribbean Public Health Agency (CARPHA). "Caribbean Regional Security, Health and Disaster Agencies Face Comprehensive Readiness Test". [https://carpha.org/More/Media/Articles/ArticleID/169/Caribbean-regional-security-health-and-disaster-agencies-face-comprehensive-readiness-test]. Accessed 28 August 2020.

[4] Office of Disaster Preparedness and Management, a Division of the Ministry of National Security of Trinidad and Tobago. "Biological Hazards". [http://www.odpm.gov.tt/node/28]. Accessed 28 August 2020.

[5] Inter-American Committee Against Terrorism. "Exercise Bio-Shield: Crisis Management Simulation Exercise in Response to a Bio-terrorist Attack". [http://cicte.oas.org/rev/en/events/Bioterrorism/Bio-Trinidad-2010.asp]. Accessed 28 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.

[7] National Emergency Management Agency (NEMA) of the Bahamas. "The National Emergency Management Agency". [https://bit.ly/2shrzte]. Accessed 28 August 2020.

[8] Ministry of National Security of the Bahamas. [http://www.bahamas.gov.bs/nationalsecurity]. Accessed 28 August 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 no evidence that there is a communications strategy for how messages will reach populations and sectors with different communications needs, as there is insufficient evidence that the Bahamas has a communication plan that is specifically intended for use during a public health emergency. An August 2020 article from the government Bahamas Information Services, describing equipment donated from the Pan American Health Organization to the country for COVID-19 response, mentions risk communication among the "technical advice and support" that PAHO is providing to the country's COVID-19 response. [1] A local news article from 2006 reports on a risk communication workshop held that year, attended by government representatives and other stakeholders, and specifically referencing Avian and Pandemic Influenza. [2] The Bahamas received a score of 100 for the risk communication indicator of the World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). [3] This reflects that the country has an implementation status of 100%, which is the progress made towards the attainment of this core capacity. [4] However, no details are available, and there is no evidence of such a document provided by the Ministry of Health, Ministry of Agriculture,

or through the country's Legislative Library. [5, 6, 7]

- [1] The Government of the Bahamas. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [https://bit.ly/31CfZLH]. Accessed 28 August 2020.
- [2] Bahamas B2B.com. 19 May 2006. "Workshop On Risk Communication". [http://webcache.googleusercontent.com/search?q=cache:wzkaK_6gbgQJ:www.bahamasb2b.com/news/wmview.php%3FArtID%3D7961+&cd=1&hl=en&ct=clnk&gl=us]. Accessed 28 August 2020.
- [3] World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). "Bahamas - 2017 - Risk communication". [https://extranet.who.int/sph/bahamas-2017-risk-communication]. Accessed 28 August 2020.
- [4] World Health Organization. April 2013. "International Health Regulations (2005) - IHR Core Capacity Monitoring Framework - Checklist and Indicators for Monitoring Progress in the Development of IHR Core Capacities in States Parties". [https://apps.who.int/iris/bitstream/handle/10665/84933/WHO_HSE_GCR_2013.2_eng.pdf?sequence=1]. Accessed 28 August 2020.
- [5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.
- [6] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 28 August 2020.
- [7] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [http://laws.bahamas.gov.bs/cms/en/]. Accessed 28 August 2020.

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Bahamas has a risk communication plan that is specifically intended for use during a public health emergency. An August 2020 article from the government Bahamas Information Services, describing equipment donated from the Pan American Health Organization to the country for COVID-19 response, mentions risk communication among the "technical advice and support" that PAHO is providing to the country's COVID-19 response. [1] A local news article from 2006 reports on a risk communication workshop held that year, attended by government representatives and other stakeholders, and specifically referencing Avian and Pandemic Influenza. [2] The Bahamas received a score of 100 for the risk communication indicator of the World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). [3] This reflects that the country has an implementation status of 100%, which is the progress made towards the attainment of this core capacity. [4] However, no details are available, and there is no evidence of such a document provided by the Ministry of Health, Ministry of Agriculture, or through the country's Legislative Library. [5, 6, 7]

- [1] The Government of the Bahamas. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [https://bit.ly/31CfZLH]. Accessed 28 August 2020.
- [2] Bahamas B2B.com. 19 May 2006. "Workshop On Risk Communication". [http://webcache.googleusercontent.com/search?q=cache:wzkaK_6gbgQJ:www.bahamasb2b.com/news/wmview.php%3FArtID%3D7961+&cd=1&hl=en&ct=clnk&gl=us]. Accessed 28 August 2020.

[3] World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). "Bahamas - 2017 - Risk communication". [<https://extranet.who.int/sph/bahamas-2017-risk-communication>]. Accessed 28 August 2020.

[4] World Health Organization. April 2013. "International Health Regulations (2005) - IHR Core Capacity Monitoring Framework - Checklist and Indicators for Monitoring Progress in the Development of IHR Core Capacities in States Parties". [https://apps.who.int/iris/bitstream/handle/10665/84933/WHO_HSE_GCR_2013.2_eng.pdf?sequence=1]. Accessed 28 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.

[6] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 28 August 2020.

[7] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [<http://laws.bahamas.gov.bs/cms/en/>]. Accessed 28 August 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 no evidence that there is a designated specific position within the government to serve as the primary spokesperson to the public during a public health emergency, as there is insufficient evidence that the Bahamas has a communication plan that is specifically intended for use during a public health emergency. An August 2020 article from the government Bahamas Information Services, describing equipment donated from the Pan American Health Organization to the country for COVID-19 response, mentions risk communication among the "technical advice and support" that PAHO is providing to the country's COVID-19 response. [1] A local news article from 2006 reports on a risk communication workshop held that year, attended by government representatives and other stakeholders, and specifically referencing Avian and Pandemic Influenza. [2] The Bahamas received a score of 100 for the risk communication indicator of the World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). [3] This reflects that the country has an implementation status of 100%, which is the progress made towards the attainment of this core capacity. [4] However, no details are available, and there is no evidence of such a document provided by the Ministry of Health, Ministry of Agriculture, or through the country's Legislative Library. [5, 6, 7]

[1] The Government of the Bahamas. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [<https://bit.ly/31CfZLH>]. Accessed 28 August 2020.

[2] Bahamas B2B.com. 19 May 2006. "Workshop On Risk Communication". [http://webcache.googleusercontent.com/search?q=cache:wzkaK_6gbgQJ:www.bahamasb2b.com/news/wmview.php%3FARtID%3D7961+&cd=1&hl=en&ct=clnk&gl=us]. Accessed 28 August 2020.

[3] World Health Organization (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). "Bahamas - 2017 - Risk communication". [<https://extranet.who.int/sph/bahamas-2017-risk-communication>]. Accessed 28 August 2020.

[4] World Health Organization. April 2013. "International Health Regulations (2005) - IHR Core Capacity Monitoring Framework - Checklist and Indicators for Monitoring Progress in the Development of IHR Core Capacities in States Parties". [https://apps.who.int/iris/bitstream/handle/10665/84933/WHO_HSE_GCR_2013.2_eng.pdf?sequence=1]. Accessed 28 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 28 August 2020.

[6] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 28 August 2020.

[7] Office of the Attorney General and Ministry of Legal Affairs, the Government of the Bahamas Online Legislation. [<http://laws.bahamas.gov.bs/cms/en/>]. Accessed 28 August 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

There is evidence that, in the past year, the public health system has actively shared messages via online media platforms to inform the public about ongoing public health concerns and dispel rumors, misinformation or disinformation. The Office of the Prime Minister maintains active Twitter and Facebook pages, and the Ministry of Health has a Facebook page, which include information such as update on COVID-19 cases and guidelines on non-pharmaceutical interventions to control the spread of COVID-19. [1, 2, 3] The Ministry of Health Facebook page has also include messages to dispel misinformation, such as a post clarifying that a message circulating on social media about COVID-19 guidelines was not from the Ministry of Health. [4] The Ministry of Health has a Twitter page, however, it has not posted an update since May 2019, and the messages focus on health promotion related to non-communicable diseases. [5]

[1] Twitter. "Office of the Prime Minister - The Bahamas". [<https://twitter.com/opmthebahamas?lang=en>]. Accessed 28 August 2020.

[2] Facebook. "Office of the Prime Minister - The Bahamas". [<https://www.facebook.com/opmbs/>]. Accessed 28 August 2020.

[3] Facebook. "Ministry of Health - The Bahamas". [<https://www.facebook.com/MOHBahamas/>]. Accessed 28 August 2020.

[4] Facebook. 28 August 2018. "Ministry of Health - The Bahamas".

[<https://www.facebook.com/MOHBahamas/photos/pcb.1198712000511948/1198710243845457/>]. Accessed 28 August 2020.

[5] Twitter. "Ministry of Health - The Bahamas". [<https://twitter.com/mohbahamas?lang=en>]. Accessed 28 August 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence that senior leaders in the Bahamas have shared misinformation or disinformation on infectious diseases in the past two years. There is no such evidence, including through international news outlets and national news outlets, such as The Tribune, The Freeport News and BahamasLocal.com. [1, 2, 3] In April 2020, the Executive Director of the Caribbean Public Health Agency (CARPHA) gave an interview where she "debunked a number of myths that have been

circulating." [4]

[1] The Tribune. [<http://www.tribune242.com/>]. Accessed 29 August 2020.

[2] The Freeport News. [<http://thefreeportnews.com/>]. Accessed 29 August 2020.

[3] BahamasLocal.com. [<https://www.bahamaslocal.com/news/>]. Accessed 29 August 2020.

[4] CARICOM Today. 8 April 2020. "CARPHA Now Testing for Novel Coronavirus."

[<https://today.caricom.org/2020/02/13/carpha-now-testing-for-novel-coronavirus/>]. Accessed 29 August 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 85

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: 109.25

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: 3.14

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: 4.24

2018-2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that the Bahamas has issued a restriction on the export/import of medical goods due to an infectious disease outbreak. There is no evidence of such restrictions through the Ministry of Health, Ministry of Agriculture, Ministry of Foreign Affairs, International Trade and Immigration, or Ministry of National Security, and there is no mention from media outlets. [1, 2, 3, 4] The World Health Organization (WHO) Disease Outbreak News and the World Organisation for Animal Health (OIE) Weekly Disease Information does not indicate there have been any restrictions in the past year. [5, 6]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[2] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 29 August 2020.

[3] Ministry of Foreign Affairs of the Bahamas. [<https://mofa.gov.bs/>]. Accessed 29 August 2020.

[4] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity/>]. Accessed 29 August 2020.

[5] World Health Organization. "Emergencies preparedness, response - Disease Outbreak News (DONs)". [<http://www.who.int/csr/don/en/>]. Accessed 29 August 2020.

[6] World Organisation for Animal Health (OIE). "World Animal Health Information System (WAHIS) - Weekly Disease Information". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI]. Accessed 29 August 2020.

3.7.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is insufficient evidence that the Bahamas has issued a restriction, without international/bilateral support, on the export/import of non-medical goods due to an infectious disease outbreak. A press release from the Office of the Prime

Minister in April 2020 announced a ban on the import on non-medical masks to protect the local mask manufacturing industry. [1] However, there is no evidence this import restriction was without international/bilateral support. There is no evidence of such restrictions through the Ministry of Health, Ministry of Agriculture, Ministry of Foreign Affairs, International Trade and Immigration, or Ministry of National Security, and there is no mention from media outlets. [2, 3, 4, 5] The World Health Organization (WHO) Disease Outbreak News and the World Organisation for Animal Health (OIE) Weekly Disease Information does not indicate there have been any restrictions in the past year. [6, 7]

[1] The Government of the Bahamas. 9 April 2020. "Prime Minister Minnis announces ban on import of non-medical masks to help develop local industry". [<https://bit.ly/3hGJVfd>]. Accessed 29 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 29 August 2020.

[4] Ministry of Foreign Affairs of the Bahamas. [<https://mofa.gov.bs/>]. Accessed 29 August 2020.

[5] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity/>]. Accessed 29 August 2020.

[6] World Health Organization. "Emergencies preparedness, response - Disease Outbreak News (DONs)". [<http://www.who.int/csr/don/en/>]. Accessed 29 August 2020.

[7] World Organisation for Animal Health (OIE). "World Animal Health Information System (WAHIS) - Weekly Disease Information". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI]. Accessed 29 August 2020.

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0, No = 1

Current Year Score: 0

There is evidence that the Bahamas has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. The country has implemented a travel ban due to COVID-19. In January 2020, the country implemented a travel ban that restricted travel from China to the Bahamas, and on March 24, 2020, a ban on international travel to the Bahamas went into effect in response to COVID-19. [1, 2, 3] The World Health Organization (WHO) Disease Outbreak News does not include information on a travel ban to the Bahamas. [4]

[1] The Government of the Bahamas. "WHO Declares the Novel Coronavirus Outbreak a Public Health Emergency of International Concern". [<https://bit.ly/31CuJKE>]. Accessed 29 August 2020.

[2] Aircraft Owners and Pilots Association. 25 March 2020. "The Bahamas Bans Incoming Flights during Pandemic". [<https://www.aopa.org/news-and-media/all-news/2020/march/25/the-bahamas-bans-incoming-flights-during-pandemic>]. Accessed 29 August 2020.

[3] U.S. Embassy in The Bahamas. 15 April 2020. "Nationwide Lockdowns Scheduled for the Rest of April". [<https://bs.usembassy.gov/health-alert-u-s-embassy-nassau-the-bahamas-17/>]. Accessed 29 August 2020.

[4] World Health Organization. "Emergencies preparedness, response - Disease Outbreak News (DONs)". [<http://www.who.int/csr/don/en/>]. Accessed 29 August 2020.

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 200.68

2017

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 456.69

2018

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 the Bahamas has a public workforce strategy in place, updated within the last five years, to identify fields where there is an insufficient workforce and strategies to address these shortcomings. According to the 2010-2020 National Health System Strategic Plan, published over five years ago in 2010, the Bahamas faces shortages in many health care providers, including nurses and allied health professionals. [1] The fourth of seven goals in the strategic plan is to strengthen the health workforce to ensure "the right number of individuals, in the right roles, in the right locations, with the right skills to deliver quality care and services". [1] A 2017 press release from the government Bahamas Information Services described an investment by the government towards the University of the West Indies School of Medicine, with the Minister of Health stating that the investment was part of a long-term effort to "rebuild the public health workforce." [2] According to a 2019 press release, the same Minister of Health, addressed a group of students at the University of The Bahamas' Nursing and Allied Health Profession Orientation, reminding them "that there could be no universal health without a

developed health workforce." [3] There is no mention of a public health workforce strategy in the country's 2017 Human Resources Policies. [4] There is no additional or more recent information provided by the Ministry of Health, Department of Labour, or Ministry of Education. [5, 6, 7]

[1] Department of Public Health and Public Hospitals Authority of the Ministry of Health of the Bahamas. "National Health System Strategic Plan, 2010-2020". [https://www.bahamas.gov.bs/wps/wcm/connect/8ee7a539-0e8c-4263-ae2e-ee14c3ca258e/National+Health+Strategic+Plan+2010_2020.pdf?MOD=AJPERES&CACHEID=8ee7a539-0e8c-4263-ae2e-ee14c3ca258e]. Accessed 29 August 2020.

[2] The Government of the Bahamas. 21 June 2017. "Government Committed to Support of UWI School of Clinical Medicine and Research, Bahamas Campus". [<https://bit.ly/2QDqwAa>]. Accessed 29 August 2020.

[3] Ministry of Health. 16 August 2019. "Minister of Health Addresses UB Nursing and Allied Health Students". [<https://bit.ly/31EQw4j>]. Accessed 29 August 2020.

[4] Ministry of Labour and National Insurance and Ministry of the Public Service of the Bahamas. 31 March 2017. "The Bahamas Government Human Resources Policies". [<https://www.bahamas.gov.bs/wps/wcm/connect/c706dadb-82df-41f4-a448-f01b60014779/HumanResourcePolicyManual-FinalDraft.pdf?MOD=AJPERES>]. Accessed 29 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[6] Department of Labour of the Bahamas. [<https://bit.ly/2ViJSL5>]. Accessed 29 August 2020.

[7] Ministry of Education of the Bahamas. [<https://www.ministryofeducationbahamas.com/>]. Accessed 29 August 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 296

2017

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: 1

There is evidence that the Bahamas has the capacity to isolate patients with highly communicable diseases in a patient isolation facility.

The Accident and Emergency Department at Princess Margaret Hospital (PMH) has one infectious control room with a negative air pressure system, and there is no other evidence of additional isolation rooms at PMH. [1] In March 2020, a national news outlet reported that the isolation and quarantine facility at Princess Margaret Hospital was near completion, as part of the government response to COVID-19, however the capacity and capabilities of the facility are not described. [2] In April 2020 the Minister of Health informed Parliament that the "modular unit" at the Princess Margaret Hospital had been completed and would "aid in decompressing the current isolation unit in the Old GPC area, which was repurposed for use for

assessment and management of suspected COVID-19 cases." [3] An August 2020 article from a different national news outlet reported that the government allocated BSD \$10 million for renovations at PMH, including to the isolation room. [4]

A 2014 post from the Bahamas Information Services, about activation of the country's health protocol regarding significant public health threats such as Ebola, reported that there was a suspected case of such an infectious disease, and the patient was quarantined and received care in an isolation room at Doctors Hospital, a private healthcare facility. [5] The communique emphasized the importance of isolation, but does not include detail on facilities with the capacity to safely treat patients with highly infectious diseases. [5, 6] The Ministry of Health indicates that isolation for the first 2 weeks of treatment is part of the protocol for tuberculosis treatment. [7] There is no additional information about a biocontainment patient care unit and/or patient isolation facility through the Ministry of Health or the Public Hospitals Authority (PHA), a quasi-government entity that is responsible for management and development of the country's public hospitals, including Princess Margaret Hospital (PMH) and Grand Bahamas Health Services. [8, 9, 10, 11]

[1] Princess Margaret Hospital of the Bahamas. "Accident and Emergency Department."

[<http://www.pmh.phabahamas.org/services/out-patient-services/accident-emergency-department/>]. Accessed 10 September 2020.

[2] Jones, Royston. 25 March 2020. "Construction of COVID-19 isolation facility near completion". Eyewitness News.

[<https://ewnews.com/construction-of-covid-19-isolation-facility-near-completion#>]. Accessed 29 August 2020.

[3] The Government of the Bahamas. 6 April 2020. "Communication to Parliament: An Update on the COVID-19 Response in The Bahamas ". [<https://www.bahamas.gov.bs/wps/wcm/connect/8b524ba2-5060-44ae-94f3-81d16512230a/Communication+in+the+House+of+Assembly+-+An+Update+on+COVID-19+Response+in+The+Bahamas+-+FINAL.pdf?MOD=AJPERES>]. Accessed 10 September 2020.

[4] Rolle, Leandra. 28 August 2020. "\$10m Allocated For PMH Renovations". The Tribune.

[<http://www.tribune242.com/news/2020/aug/28/pmh/>]. Accessed 29 August 2020.

[5] Government of the Bahamas - Bahamas Information Services. 23 September 2014. "Featured Story - National Health Protocol

Commended". [http://www.bahamas.gov.bs/wps/wcm/connect/mof_content/internet/all+news+press+release/national+health+protocol+commended]. Accessed 29 August 2020.

[6] Doctors Hospital Health System. "Our Facilities". [<https://www.doctorshosp.com/our-facilities>]. Accessed 29 August 2020.

[7] Ministry of Health of the Bahamas. "Protocol for Tuberculosis (TB) Treatment". [<https://bit.ly/2SnGg8l>]. Accessed 29 August 2020.

[8] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[9] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 29 August 2020.

[10] Princess Margaret Hospital. [<http://pmh.phabahamas.org/>]. Accessed 29 August 2020.

[11] Grand Bahama Health Services. [<http://gbhs.phabahamas.org/>]. Accessed 29 August 2020.

4.1.2c

Does the country meet one of the following criteria?

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

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence that the Bahamas has developed a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. In March 2020, a national news outlet reported that the isolation and quarantine facility at Princess Margaret Hospital was near completion, as part of the government response to COVID-19, however the capacity and capabilities of the facility are not described. [1] In April 2020 the Minister of Health informed Parliament that the "modular unit" at the Princess Margaret Hospital had been completed and would "aid in decompressing the current isolation unit in the Old GPC area, which was repurposed for use for assessment and management of suspected COVID-19 cases." [2] An August 2020 article from a different national news outlet reported that the government allocated BSD \$10 million for renovations at PMH, including to the isolation room. [3]

[1] Jones, Royston. 25 March 2020. "Construction of COVID-19 isolation facility near completion". Eyewitness News.

[<https://ewnews.com/construction-of-covid-19-isolation-facility-near-completion#>]. Accessed 7 March 2021.

[2] The Government of the Bahamas. 6 April 2020. "Communication to Parliament: An Update on the COVID-19 Response in The Bahamas ". [<https://www.bahamas.gov.bs/wps/wcm/connect/8b524ba2-5060-44ae-94f3-81d16512230a/Communication+in+the+House+of+Assembly+-+An+Update+on+COVID-19+Response+in+The+Bahamas+-+FINAL.pdf?MOD=AJPERES>]. Accessed 7 March 2021.

[3] Rolle, Leandra. 28 August 2020. "\$10m Allocated For PMH Renovations". The Tribune.

[<http://www.tribune242.com/news/2020/aug/28/pmh/>]. Accessed 7 March 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: 1

There is evidence of a national procurement protocol in place in the Bahamas which can be utilized by the Ministries of Health and Agriculture for the acquisition of medical and laboratory supplies. The Government's eProcurement and Supplier Registry Portal includes contract opportunities for medical supplies and provision of medical equipment, as recent as July 2020. [1, 2] Part of the mission of the Public Hospitals Authority is to "Provide for the national procurement and inventory management of pharmaceuticals and medical/surgical supplies throughout the Public Sector Health Services." [3] Additionally, the Bahamas is a member of the Caribbean Health Agency (CARPHA), which is a partner of the Caribbean Med Labs Foundation (CMLF), a non-governmental organisation dedicated to assisting governments around best practice in medical laboratory services in the Caribbean region. [4] CMLF has published the Regional Guidelines for Procurement and Inventory Management, which is intended to set out guidelines for laboratory acquisition and management of goods and services, though the resource is undated. [5] There is no evidence that there is a national procurement protocol in place for the acquisition of laboratory supplies, including through the Ministry of Health, Ministry of Agriculture, eProcurement and Supplier Registry Portal, or Public Hospitals Authority. [6, 7, 8, 9]

[1] eProcurement and Supplier Registry Portal - Government of the Bahamas. 28 July 2020. "Medical Supplies".

[<https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=835451>]. Accessed 29 August 2020.

[2] eProcurement and Supplier Registry Portal - Government of the Bahamas. "Provision of Medical Equipment".

- [https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=848961]. Accessed 29 August 2020.
- [3] Public Hospitals Authority - Commonwealth of the Bahamas. 2009. "Annual Report: 1st July 2008-30th June 2009." [http://www.corp.phabahamas.org/resource-centre/files/a05b7ea5-f740-42db-bf06-25bddb73d287/public%20hospitals%20authority%202008-2009%20annual%20report.pdf]. Accessed 29 August 2020.
- [4] Caribbean Med Labs Foundation. "About Us". [http://cmedlabsfoundation.net/index.php/about-us/cmif-objectives]. Accessed 29 August 2020.
- [5] Caribbean Med Labs Foundation. ND. "Regional Guidelines for Procurement and Inventory Management". [http://cmedlabsfoundation.net/images/pguide/introduction.html]. Accessed 29 August 2020.
- [6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 10 September 2020.
- [7] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 10 September 2020.
- [8] eProcurement and Supplier Registry Portal - Government of the Bahamas. [https://suppliers.gov.bs/]. Accessed 10 September 2020.
- [9] Public Hospitals Authority of the Bahamas. [http://www.phabahamas.org/]. Accessed 10 September 2020.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 0

There is insufficient evidence that the Bahamas has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. An April 2020 communication to Parliament from the Minister of Health stated that, "stores in areas such as basic PPE kits, surgical masks, N95 and KN95 masks, visors, boot covers, and gowns is more than adequate for up to one month and more are being procured from local and international vendors." [1] Also in April 2020, a press release from the Ministry of Health stated that health care workers would be provided with proper personal protective equipment (PPE), that the Government had ordered additional PPE, and supply levels are being monitored and maintained. [2] In July 2020, the Government's eProcurement and Supplier Registry Portal put out contract opportunities for medical supplies and provision of medical equipment, but these were not explicitly for use during a public health emergency. [3, 4] In August 2020, the government Bahamas Information Services announced that the Pan American Health Organization presented the Ministry of Health with equipment - including laboratory equipment, COVID-19 tests, and communication equipment - to assist the country in the fight against COVID-19. [5] There is no evidence of a stockpile of medical supplies including through the Ministry of Health, eProcurement and Supplier Registry Portal, Ministry of National Security, or Public Hospitals Authority. [6, 7, 8, 9]

- [1] Minister of Health of the Bahamas. 26 April 2020. "Communication to Parliament: An Update on the COVID-19 Response in The Bahamas". [https://www.bahamas.gov.bs/wps/wcm/connect/dce6bc2d-ef1a-4741-bc3b-f7566af6766e/Covid-19+Update+by+Minister+of+Health+the+Hon.+Dr.+Duane+Sands.pdf?MOD=AJPERES]. Accessed 29 August 2020.
- [2] The Government of the Bahamas. 14 April 2020. "Response to the Commonwealth of The Bahamas Trade Union Congress Bahamas Union on the Crisis in the Workplace for Medical Workers - Update #39". [https://bit.ly/34OuH4f]. Accessed 29 August 2020.
- [3] eProcurement and Supplier Registry Portal - Government of the Bahamas. 28 July 2020. "Medical Supplies". [https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=835451]. Accessed 29 August 2020.
- [4] eProcurement and Supplier Registry Portal - Government of the Bahamas. "Provision of Medical Equipment".

[<https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=848961>]. Accessed 29 August 2020.

[5] The Government of the Bahamas. 7 August 2020. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [<https://bit.ly/2QAY7dR>]. Accessed 29 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 10 September 2020.

[7] eProcurement and Supplier Registry Portal - Government of the Bahamas. [<https://suppliers.gov.bs/>]. Accessed 10 September 2020.

[8] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 10 September 2020.

[9] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 10 September 2020.

4.2.2b

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

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

Current Year Score: 0

There is insufficient evidence that the Bahamas has a stockpile of laboratory supplies for national use during a public health emergency. An April 2020 communication to Parliament from the Minister of Health stated that, "stores in areas such as basic PPE kits, surgical masks, N95 and KN95 masks, visors, boot covers, and gowns is more than adequate for up to one month and more are being procured from local and international vendors." [1] Also in April 2020, a press release from the Ministry of Health stated that health care workers would be provided with proper personal protective equipment (PPE), that the Government had ordered additional PPE, and supply levels are being monitored and maintained. [2] In July 2020, the Government's eProcurement and Supplier Registry Portal put out contract opportunities for medical supplies and provision of medical equipment, but these were not explicitly for use during a public health emergency. [3, 4] In August 2020, the government Bahamas Information Services announced that the Pan American Health Organization presented the Ministry of Health with equipment - including laboratory equipment, COVID-19 tests, and communication equipment - to assist the country in the fight against COVID-19. [5] However, there is no mention of a stockpile of laboratory supplies by the Ministry of Health, Ministry of National Security, National Emergency Management Agency, or the Public Hospitals Authority. [6, 7, 8, 9]

[1] Minister of Health of the Bahamas. 26 April 2020. "Communication to Parliament: An Update on the COVID-19 Response in The Bahamas". [<https://www.bahamas.gov.bs/wps/wcm/connect/dce6bc2d-ef1a-4741-bc3b-f7566af6766e/Covid-19+Update+by+Minister+of+Health+the+Hon.+Dr.+Duane+Sands.pdf?MOD=AJPERES>]. Accessed 29 August 2020.

[2] The Government of the Bahamas. 14 April 2020. "Response to the Commonwealth of The Bahamas Trade Union Congress Bahamas Union on the Crisis in the Workplace for Medical Workers - Update #39". [<https://bit.ly/34OuH4f>]. Accessed 29 August 2020.

[3] eProcurement and Supplier Registry Portal - Government of the Bahamas. 28 July 2020. "Medical Supplies". [<https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=835451>]. Accessed 29 August 2020.

[4] eProcurement and Supplier Registry Portal - Government of the Bahamas. "Provision of Medical Equipment". [<https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=848961>]. Accessed 29 August 2020.

[5] The Government of the Bahamas. 7 August 2020. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [<https://bit.ly/2QAY7dR>]. Accessed 29 August 2020.

[6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[7] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity/>]. Accessed 29 August 2020.

[8] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 2020.

[9] Public Hospitals Authority. [<http://www.phabahamas.org/>]. Accessed 29 August 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 insufficient evidence that the Bahamas conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. An April 2020 communication to Parliament from the Minister of Health stated that, "stores in areas such as basic PPE kits, surgical masks, N95 and KN95 masks, visors, boot covers, and gowns is more than adequate for up to one month and more are being procured from local and international vendors," however, there is no mention of a required annual review to ensure sufficient supply. [1] Also in April 2020, a press release from the Ministry of Health stated that health care workers would be provided with proper personal protective equipment (PPE), that the Government had ordered additional PPE, and supply levels are being monitored and maintained, but the press release does not specify that monitoring and maintenance takes place beyond the public health emergency or on an annual basis. [2] There is no evidence of an annual review of the national stockpile from the Ministry of Health, eProcurement and Supplier Registry Portal, Ministry of National Security, Public Hospitals Authority, or National Emergency Management Agency. [3, 4, 5, 6, 7]

[1] Minister of Health of the Bahamas. 26 April 2020. "Communication to Parliament: An Update on the COVID-19 Response in The Bahamas". [<https://www.bahamas.gov.bs/wps/wcm/connect/dce6bc2d-ef1a-4741-bc3b-f7566af6766e/Covid-19+Update+by+Minister+of+Health+the+Hon.+Dr.+Duane+Sands.pdf?MOD=AJPERES>]. Accessed 7 March 2021.

[2] The Government of the Bahamas. 14 April 2020. "Response to the Commonwealth of The Bahamas Trade Union Congress Bahamas Union on the Crisis in the Workplace for Medical Workers - Update #39". [<https://bit.ly/34OuH4f>]. Accessed 7 March 2021.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 7 March 2021.

[4] eProcurement and Supplier Registry Portal - Government of the Bahamas. [<https://suppliers.gov.bs/>]. Accessed 7 March 2021.

[5] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 7 March 2021.

[6] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 7 March 2021.

[7] National Emergency Management Agency (NEMA) of the Bahamas. [<https://bit.ly/2shrzte>]. Accessed 7 March 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 that the Bahamas has 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 or to procure medical supplies for national use during a public health emergency. In July 2020, the Caribbean Development Bank procured and purchased US\$3 million worth of "critically needed" personal protective equipment (PPE) for the Caribbean, delivered to Barbados to be stored, sorted, and repacked for distribution to 14 countries in the Caribbean, including the Bahamas. [1] In July 2020, the Government's eProcurement and Supplier Registry Portal put out contract opportunities for medical supplies and provision of medical equipment, but these were not explicitly for use during a public health emergency. [2, 3] China has made donations of medical supplies to the Bahamas to support the country's COVID-19 response, and in August 2020, the government Bahamas Information Services announced that the Pan American Health Organization presented the Ministry of Health with equipment - including laboratory equipment, COVID-19 tests, and communication equipment - to assist the country in the fight against COVID-19. [4, 5] However, there is no evidence that these efforts are related to domestic manufacturing capacity or procurement for national use, including through the Ministry of Health, Ministry of National Security, National Emergency Management Agency, or the Public Hospitals Authority. [6, 7, 8, 9] Beginning in April 2020, the European Development Fund provided 8 million euro (US\$9.4m) to the Caribbean Public Health Agency (CARPHA) to improve health security in the region, with direct/immediate impacts including "procurement and distribution of Personal Protective Equipment (PPE) to Caribbean Member States." [10] However, CARPHA does not have information about plans for domestic manufacturing capacity or procurement available throughout the region. [11]

- [1] CARICOM Today. 23 July 2020. "Critical Personal Protective Equipment Procured for Caribbean Frontline Medical Workers." [<https://today.caricom.org/2020/07/23/critical-personal-protective-equipment-procured-for-caribbean-frontline-medical-workers/>]. Accessed 29 August 2020.
- [2] eProcurement and Supplier Registry Portal - Government of the Bahamas. 28 July 2020. "Medical Supplies". [<https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=835451>]. Accessed 29 August 2020.
- [3] eProcurement and Supplier Registry Portal - Government of the Bahamas. "Provision of Medical Equipment". [<https://suppliers.gov.bs/bahamas/viewNotice.html?displayNoticeId=848961>]. Accessed 29 August 2020.
- [4] Eyewitness News. 27 May 2020. "China donates medical supplies to The Bahamas". [<https://ewnews.com/china-donates-medical-supplies-to-the-bahamas>]. Accessed 29 August 2020.
- [5] The Government of the Bahamas. 7 August 2020. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [<https://bit.ly/2QAY7dR>]. Accessed 29 August 2020.
- [6] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.
- [7] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity/>]. Accessed 29 August 2020.
- [8] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 2020.
- [9] Public Hospitals Authority. [<http://www.phabahamas.org/>]. Accessed 29 August 2020.
- [10] Caribbean Public Health Agency (CARPHA). 2020. "11th EDF Programme of Support for Health Security Strengthening for Prevention and Control of Outbreaks of Communicable Diseases in the Caribbean". [<https://carpha.org/What-We-Do/Projects/11th-EDF-Regional-Health-Security>]. Accessed 29 August 2020.
- [11] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 29 August 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 that the Bahamas has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency or to procure laboratory supplies for national use during a public health emergency. In a press release from April 2020, regarding COVID-19, the Director of the Pan American Health Organization (PAHO) stated that PAHO was working with leading manufactures to meet shortages of PCR tests in the region and is providing guidance to regulatory and health authorities to help ensure countries procure reliable products. [1] In August 2020, the government Bahamas Information Services announced that the Pan American Health Organization presented the Ministry of Health with equipment - including laboratory equipment - to assist the country in the fight against COVID-19. [2] However, there is no evidence that these efforts are related to domestic manufacturing capacity or procurement for national use, including through the Ministry of Health, Ministry of National Security, National Emergency Management Agency, or the Public Hospitals Authority. [3, 4, 5, 6] Beginning in April 2020, the European Development Fund provided 8 million euro (US\$9.4m) to the Caribbean Public Health Agency (CARPHA) to improve health security in the region, with direct/immediate impacts including "strengthening diagnostic testing for Communicable Diseases, including COVID-19, at CARPHA and CARPHA Member States through the procurement of test kits, reagents and consumables as well as new equipment." [7] However, CARPHA does not have information about plans for production or procurement of laboratory supplies available throughout the region. [8]

[1] Antigua and Barbuda's Government Information and Services. 23 April 2020. "PAHO Director Urges Accelerate and Expand Testing for COVID-19 in the Americas." [https://ab.gov.ag/media_page.php?page=237]. Accessed 8 August 2020.

[2] The Government of the Bahamas. 7 August 2020. "PAHO Presents Equipment to Ministry of Health to Help Fight COVID-19". [<https://bit.ly/2QAY7dR>]. Accessed 29 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[4] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity/>]. Accessed 29 August 2020.

[5] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 2020.

[6] Public Hospitals Authority. [<http://www.phabahamas.org/>]. Accessed 29 August 2020.

[7] Caribbean Public Health Agency (CARPHA). 2020. "11th EDF Programme of Support for Health Security Strengthening for Prevention and Control of Outbreaks of Communicable Diseases in the Caribbean". [<https://carpha.org/What-We-Do/Projects/11th-EDF-Regional-Health-Security>]. Accessed 29 August 2020.

[8] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 29 August 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 the Bahamas has a plan, program, or guidelines in place for dispensing medical countermeasures for national use during a public health emergency. The Supplies Management Agency of the Public Hospitals Authority is responsible for procurement of pharmaceutical products within the public health sector, but there is no available information

on stockpiles or dispensing of medical countermeasures or agreements to procure medical countermeasures. [1] The Ministry of Health, Ministry of National Security, and the National Emergency Management Agency do not indicate the country has a plan in place for dispensing medical countermeasures. [2, 3, 4] There is also no information available about the plan for dispensing medical countermeasures available from the Caribbean Public Health Agency (CARPHA). [5]

[1] Public Hospitals Authority. "Supplies Management Agency (SMA)". [<http://www.corp.phabahamas.org/hospitals-services/bnda/>]. Accessed 23 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[3] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 23 August 2020.

[4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 23 August 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 insufficient evidence that there is a public plan in place for the Bahamas to receive health personnel from other countries to respond to a public health emergency. The Caribbean Public Health Agency (CARPHA), in accordance with the Inter-Governmental Agreement (IGA), is mandated to respond to emergencies, including pandemics, in Member States. [1, 2] Also, health specialists are among the technical personnel that may be deployed by the Caribbean Disaster Emergency Management Agency's (CDEMA) Rapid Needs Assessment Team (RNAT), according to CDEMA's Regional Response Mechanism, immediately after a disastrous event. [3] However, CARPHA and CDEMA do not provide detail on a plan for countries to receive health personnel from other countries. In September 2019, the Pan American Health Organization sent Emergency Medical Teams to the Bahamas in response to Hurricane Dorian. [4] There is no additional information about a plan to receive health personnel from other countries to respond to a public health emergency from the Ministry of Health, Ministry of National Security, Royal Bahamas Defence Force, or the National Emergency Management Agency. [5, 6, 7, 8]

[1] Caribbean Public Health Agency (CARPHA). 2011. "Agreement Establishing the Caribbean Public Health Agency (CARPHA)". [<https://caricom.org/documents/legaldocuments/10375-carpha-iga.pdf>]. Accessed 29 August 2020.

[2] Caribbean Community (CARICOM). 16 September 2017. "CARPHA Deploys Staff to Assist Hurricane-Devastated British Virgin Islands". [<https://caricom.org/communications/view/carpha-deploys-staff-to-assist-hurricane-devastated-british-virgin-islands>]. Accessed 29 August 2020.

[3] Caribbean Disaster Emergency Management Agency's (CDEMA). 2016. "Regional Response Mechanism". [https://www.cdema.org/RRM_Booklet_Final_PDF_version.pdf]. Accessed 29 August 2020.

[4] ReliefWeb. 6 September 2019. "PAHO Supports Bahamas Response with Emergency Medical Teams". [<https://reliefweb.int/report/bahamas/paho-supports-bahamas-response-emergency-medical-teams>]. Accessed 29 August 2020.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[6] Ministry of National Security of the Bahamas. [<http://www.bahamas.gov.bs/nationalsecurity>]. Accessed 29 August 2020.

[7] Royal Bahamas Defence Force. [<http://rbdf.gov.bs/>]. Accessed 29 August 2020.

[8] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 2020.

August 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 0

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.6

2014

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: 544.1

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

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 the Bahamas 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. The Ministry of Health and the National Emergency Management Agency does not mention prioritization of healthcare workers who become sick. [1, 2] The Bahamas is part of the Caribbean Disaster Emergency Management Agency (CDEMA) for disaster management in the Caribbean Community (CARICOM) and health emergency preparedness and response is one of the functions of the Caribbean Public Health Agency (CARPHA). [3, 4] However, there is no evidence from CDEMA or CARPHA of a policy prioritizing healthcare workers who become sick as a result of responding to a public health emergency. [5, 6]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[2] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 2020.

[3] Caribbean Disaster Emergency Management Agency (CDEMA). "About Us". [<https://www.cdema.org/about-us#what-is-cdema-s-mandate>]. Accessed 29 August 2020.

[4] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)". [<http://carpha.org/Who-We-Are/Role-and-Functions>]. Accessed 29 August 2020.

[5] Caribbean Disaster Emergency Management Agency (CDEMA). [<https://www.cdema.org/>]. Accessed 29 August 2020.

[6] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 29 August 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is a system in place for public health officials and healthcare workers to communicate during a public health emergency. A government press release from 2016 regarding preparation for hurricane season describes "a state-of-the-art, multi-agency Smart-Net Integrated Trunking Communication System", which serves as an emergency communication system for the National Emergency Management Agency and is shared among 18 government agencies. [1] However, there is no specific mention of health or how healthcare workers may use this system. [1] The Ministry of Health and National Emergency Management Agency do not have any publicly available evidence regarding a system for workers to

communicate during a public health emergency. [2, 3]

[1] Thompson, L. of the Bahamas Information Services - Government of the Bahamas. 31 May 2016. "Press Release - NEMA Readies Country for 2016 Hurricane Season". [<https://bit.ly/2XxTALl>]. Accessed 29 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[3] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 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 no evidence that there is a system in place for public health officials and healthcare workers to communicate during a public health emergency. A government press release from 2016 regarding preparation for hurricane season describes "a state-of-the-art, multi-agency Smart-Net Integrated Trunking Communication System", which serves as an emergency communication system for the National Emergency Management Agency and is shared among 18 government agencies. [1] However, there is no specific mention of health or how healthcare workers may use this system. [1] The 2010-2020 National Health System Strategic Plan includes private sector collaboration as part of the first goal of the plan, but there is no specific mention of emergency planning or communication. [2] The Ministry of Health and National Emergency Management Agency not have any publicly available evidence regarding a system for workers to communicate during a public health emergency. [3, 4]

[1] Thompson, L. of the Bahamas Information Services - Government of the Bahamas. 31 May 2016. "Press Release - NEMA Readies Country for 2016 Hurricane Season". [<https://bit.ly/2XxTALl>]. Accessed 29 August 2020.

[2] Department of Public Health and Public Hospitals Authority of the Ministry of Health of the Bahamas. "National Health System Strategic Plan, 2010-2020". [https://www.bahamas.gov.bs/wps/wcm/connect/8ee7a539-0e8c-4263-ae2e-ee14c3ca258e/National+Health+Strategic+Plan+2010_2020.pdf?MOD=AJPERES&CACHEID=8ee7a539-0e8c-4263-ae2e-ee14c3ca258e]. Accessed 29 August 2020.

[3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 29 August 2020.

[4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 29 August 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 no evidence that the Bahamas's public health system monitors and tracks the number of health care associated infections (HCAIs) that take place in healthcare facilities. There is no evidence of monitoring and tracking HCAIs by the Ministry of Health or the Public Hospitals Authority. [1, 2] In 2013, there was a three-day regional workshop on the surveillance of HCAIs, but there is no description of established processes in the Bahamas, nor next steps. [3] The Caribbean Public Health Agency (CARPHA) provides a FAQ one-pager from 2015 about HCAIs, which indicates that healthcare facilities should have training and surveillance to monitor HCAIs. [4] An August 2020 local news article reported that 72 healthcare workers have contracted COVID-19 since July, and "[a] chart provided by the Ministry of Health noted that 60 contacts were exposed to the virus in hospitals and healthcare facilities," which suggests that the country tracks healthcare workers who have contracted COVID-19 through their work. [5] However, the chart referenced nor the country's tracking of this data could be confirmed through publicly available government sources.

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 30 August 2020.

[2] Public Hospitals Authority of the Bahamas. [http://www.phabahamas.org/]. Accessed 30 August 2020.

[3] Caribbean Community (CARICOM). 24 April 2013. "Caribbean Countries Discussing Healthcare Associated Infections". [https://caricom.org/caribbean-countries-discussing-healthcare-associated-infections/]. Accessed 30 August 2020.

[4] Caribbean Public Health Agency (CARPHA). "Healthcare-Associated Infections". [https://new.carpha.org/Portals/0/Documents/CARPHA_HCAIs_Factsheet_Oct2015.pdf]. Accessed 30 August 2020.

[5] Ward, J. 25 August 2020. "72 healthcare workers have COVID-19." [https://thenassauguardian.com/72-healthcare-workers-have-covid-19/]. Accessed 7 March 2021.

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: 0

There is insufficient evidence that there is a national requirement for ethical review before beginning a clinical trial in the Bahamas. The Partners Clinical Research Centre, located in The Medical Pavilion Bahamas, is the largest clinical research site in the Caribbean and indicates that its regulatory environment utilizes both a Local Ethics Committee and a Central Institutional Review Board. [1] However, there is no specific information available regarding national requirements for ethical review. There is no information about the Bahamas's research ethics review process available through Health Research Web, a resource on countries established health research processes. [2] Among the objectives of the National Health System Strategic Plan, 2010-2020, is to "Strengthen the ethical review and approval process for clinical and health services research..." [3] There is no information on the country's IRB national requirements for ethical review available through the Ministry of Health, Public Hospitals Authority, or the Caribbean Public Health Agency (CARPHA). [4, 5, 6] CARPHA's Caribbean Network of Research Ethics Committees (CANREC) is a network of Research Ethics Committees (RECs/IRBs) across the CARPHA member states, with a purpose "to promote, exchange, and cooperate intra-regionally and internationally in matters of research and research ethics." [7]

- [1] The Medical Pavillon - Partners Clinical Research Centre. "About the Partners Clinical Research Centre". [<http://www.tmp-bahamas.com/centres/pcrc/>]. Accessed 30 August 2020.
- [2] Health Research Web. "Bahamas". [<https://healthresearchweb.org/en/bahamas/ethics>]. Accessed 30 August 2020.
- [3] Department of Public Health and Public Hospitals Authority of the Ministry of Health of the Bahamas. "National Health System Strategic Plan, 2010-2020". [https://www.bahamas.gov.bs/wps/wcm/connect/8ee7a539-0e8c-4263-ae2e-ee14c3ca258e/National+Health+Strategic+Plan+2010_2020.pdf?MOD=AJPERES&CACHEID=8ee7a539-0e8c-4263-ae2e-ee14c3ca258e]. Accessed 30 August 2020.
- [4] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 30 August 2020.
- [5] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 30 August 2020.
- [6] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 30 August 2020.
- [7] Caribbean Public Health Agency (CARPHA). "Caribbean Network of Research Ethics Committees (CANREC) - About CANREC". [<https://carpha.org/What-We-Do/Networks/CANREC/Caribbean-Network-of-Research-Ethics-Committees>]. Accessed 30 August 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 that there is an expedited process for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing pandemics in the Bahamas. There is no information about the Bahamas's research ethics review process, including an expedited process for approving MCM, available through Health Research Web, a resource on countries established health research processes. [1] Among the objectives of the National Health System Strategic Plan, 2010-2020, is to "Strengthen the ethical review and approval process for clinical and health services research..." [2] There is no information on the country's IRB national requirements for ethical review available through the Ministry of Health, Public Hospitals Authority, or the Caribbean Public Health Agency (CARPHA). [3, 4, 5] CARPHA's Caribbean Network of Research Ethics Committees (CANREC) is a network of Research Ethics Committees (RECs/IRBs) across the CARPHA member states, with a purpose "to promote, exchange, and cooperate intra-regionally and internationally in matters of research and research ethics." [6]

- [1] The Medical Pavillon - Partners Clinical Research Centre. "About the Partners Clinical Research Centre". [<http://www.tmp-bahamas.com/centres/pcrc/>]. Accessed 30 August 2020.
- [2] Department of Public Health and Public Hospitals Authority of the Ministry of Health of the Bahamas. "National Health System Strategic Plan, 2010-2020". [https://www.bahamas.gov.bs/wps/wcm/connect/8ee7a539-0e8c-4263-ae2e-ee14c3ca258e/National+Health+Strategic+Plan+2010_2020.pdf?MOD=AJPERES&CACHEID=8ee7a539-0e8c-4263-ae2e-ee14c3ca258e]. Accessed 30 August 2020.
- [3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 30 August 2020.
- [4] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 30 August 2020.
- [5] Caribbean Public Health Agency (CARPHA). [<http://carpha.org/>]. Accessed 30 August 2020.
- [6] Caribbean Public Health Agency (CARPHA). "Caribbean Network of Research Ethics Committees (CANREC) - About CANREC". [<https://carpha.org/What-We-Do/Networks/CANREC/Caribbean-Network-of-Research-Ethics-Committees>]. Accessed 30 August 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 insufficient evidence that there is a government agency responsible for approving new medical countermeasures for humans in the Bahamas. There is no mention of approval for medical countermeasures provided by the Ministry of Health, Public Hospitals Authority, or Bahamas National Drug Agency. [1, 2, 3] The Caribbean Regulatory System of the Caribbean Public Health Agency (CARPHA) oversees safety, quality, and efficacy of medicines and vaccines in the Caribbean. [4] CARPHA's Medicines Quality Control and Surveillance Department monitors medicinal quality and is the sole ISO/IEC 17025 accredited pharmaceutical quality control laboratory in the Caribbean. [5] The 2013 Caribbean Pharmaceutical Policy does not mention medical countermeasures. [6]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[2] Public Hospitals Authority of the Bahamas. [http://www.phabahamas.org/]. Accessed 23 August 2020.

[3] Public Hospitals Authority - Bahamas National Drug Agency. "Supplies Management Agency (SMA)".

[http://www.corp.phabahamas.org/hospitals-services/bnda/]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA) "Caribbean Regulatory System". [https://carpha.org/What-We-Do/CRS/Caribbean-Regulatory-System]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA) "About Medicine Quality Control and Surveillance". [https://carpha.org/What-We-Do/MQCSD/Medicines-Quality-Control-and-Surveillance-Department]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA) / Pan American Health Organization (PAHO) / World Health Organization (WHO). 2013. "Caribbean Pharmaceutical Policy". [https://www.paho.org/en/file/36577/download?token=ltpehWs]. Accessed 23 August 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 that there is an expedited process for approving medical countermeasures for human use during public health emergencies in the Bahamas. There is no mention of approval for medical countermeasures provided by the Ministry of Health, Public Hospitals Authority, or Bahamas National Drug Agency. [1, 2, 3] The Caribbean Regulatory System of the Caribbean Public Health Agency (CARPHA) oversees safety, quality, and efficacy of medicines and vaccines in the Caribbean, though there is no indication that this includes medical countermeasures. [4] CARPHA's Medicines Quality Control and Surveillance Department monitors medicinal quality and is the sole ISO/IEC 17025 accredited pharmaceutical quality control laboratory in the Caribbean. [5] The 2013 Caribbean Pharmaceutical Policy does not mention medical countermeasures. [6]

[1] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 23 August 2020.

[2] Public Hospitals Authority of the Bahamas. [http://www.phabahamas.org/]. Accessed 23 August 2020.

[3] Public Hospitals Authority - Bahamas National Drug Agency. "Supplies Management Agency (SMA)".

[http://www.corp.phabahamas.org/hospitals-services/bnda/]. Accessed 23 August 2020.

[4] Caribbean Public Health Agency (CARPHA) "Caribbean Regulatory System". [https://carpha.org/What-We-

Do/CRS/Caribbean-Regulatory-System]. Accessed 23 August 2020.

[5] Caribbean Public Health Agency (CARPHA) "About Medicine Quality Control and Surveillance". [<https://carpha.org/What-We-Do/MQCSD/Medicines-Quality-Control-and-Surveillance-Department>]. Accessed 23 August 2020.

[6] Caribbean Public Health Agency (CARPHA) / Pan American Health Organization (PAHO) / World Health Organization (WHO). 2013. "Caribbean Pharmaceutical Policy". [<https://www.paho.org/en/file/36577/download?token=ltppewWs>]. Accessed 23 August 2020.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 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 pandemics are integrated into the Bahamas's national risk reduction strategy, as there is no evidence of a national disaster risk reduction strategy. A provisional agenda from the Pan American Health Organization's (PAHO) 162nd Session of the Executive Committee indicates that, as of May 2018, the Bahamas is one of the countries in the region that had responded to countries a questionnaire on implementation of the Plan of Action for Disaster Risk Reduction 2016-2021. [1] However, there is no further evidence available through PAHO, and there is no evidence of a risk reduction strategy through the Ministry of Health or National Emergency Management Agency. [2, 3, 4]

- [1] Pan American Health Organization/World Health Organization. 4 June 2018. "162nd Session of the Executive Committee". [https://www.paho.org/hq/index.php?option=com_docman&view=download&category_slug=162-en-9841&alias=44765-ce162-inf-20-i-e-poa-disaster-765&Itemid=270&lang=en]. Accessed 30 August 2020.
- [2] Pan American Health Organization / World Health Organization (PAHO/WHO). [<https://www.paho.org/hq/index.php?lang=en>]. Accessed 30 August 2020.
- [3] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 30 August 2020.
- [4] National Emergency Management Agency (NEMA) of the Bahamas. [<http://www.bahamas.gov.bs/nema>]. Accessed 30 August 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 2

The Bahamas is part of a regional group with regards to public health emergencies. Article 4 of the Agreement Establishing the Caribbean Public Health Agency (CARPHA), signed by the Government of the Bahamas, states that supporting the Caribbean Community in "preparing for and responding to public health emergencies" is one of CARPHA's objectives. [1] Health emergency preparedness and response is therefore one of the functions of the CARPHA. [1, 2] CARPHA has supported Member States during the COVID-19 pandemic, including laboratory assistance, technical guidance, and communications. [3] In addition, the Caribbean Disaster Emergency Management Agency (CDEMA) is a regional agency for disaster management in the Caribbean Community (CARICOM), of which the Bahamas is a Member State. [4] CDEMA's mandate includes "coordinating the establishment, enhancement and maintenance of adequate emergency disaster response capabilities among the Participating States". [5]

- [1] Caribbean Public Health Agency (CARPHA). 2011. "Agreement Establishing the Caribbean Public Health Agency (CARPHA)". [<https://caricom.org/documents/legaldocuments/10375-carpha-iga.pdf>]. Accessed 30 August 2020.
- [2] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)". [<https://carpha.org/Who-We-Are/Role-and-Function>]. Accessed 30 August 2020.
- [3] Caribbean Public Health Agency (CARPHA). "Coronavirus Disease (COVID-19)". [<https://www.carpha.org/What-We-Do/Public-Health/Novel-Coronavirus>]. Accessed 30 August 2020.
- [4] Caribbean Disaster Emergency Management Agency (CDEMA). "About Us". [<https://www.cdema.org/about-us>]. Accessed 30 August 2020.
- [5] Caribbean Disaster Emergency Management Agency (CDEMA). "What is CDEMA's Mandate?". [<https://www.cdema.org/about-us#what-is-cdema-s-mandate>]. Accessed 30 August 2020.

5.2.1b

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

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

Current Year Score: 2

The Bahamas is part of a regional group, with regards to animal health emergencies. The Caribbean Animal Health Network (CaribVET), of which the Bahamas is a member, is responsible for prevention and emergency preparedness plans for priority diseases. [1] Rabies, Salmonellosis, and Leptospirosis are identified by CaribVET as priority diseases. [2] The 2010 charter for CaribVET states that one of the roles of the Veterinary epidemiologist / para-epidemiologist (VEP) project is to support and operate a rapid national and regional emergency response task force. [3] Representatives from CaribVET have also been involved in the development of the Caribbean's Global Health Security Agenda (GHSA) roadmap. [4, 5]

[1] Caribbean Animal Health Network (CaribVET). "About the Network". [<https://www.caribvet.net/about-the-network>]. Accessed 30 August 2020.

[2] Caribbean Animal Health Network (CaribVET). "Veterinary Public Health". [<https://www.caribvet.net/thematics/veterinary-public-health>]. Accessed 30 August 2020.

[3] Caribbean Animal Health Network (CaribVET). "Caribbean Animal Health Network Charter". [https://www.caribvet.net/content/download/4499/33474/version/1/file/CaribVET_CHARTER_FINAL_EN2011%28detailed%29.pdf]. Accessed 30 August 2020.

[4] Caribbean Animal Health Network (CaribVET). "The Caribbean Animal Health Network (CaribVET) establishes high-level ties with Caribbean Disaster Emergency Management Agency (CDEMA)". [<https://www.caribvet.net/news/the-caribbean-animal-health-network-caribvet-establishes-high-level-ties-with-caribbean-disaster-emergency-management-agency-cdema>]. Accessed 30 August 2020.

[5] Caribbean Community (CARICOM). 29 May 2017. "Working towards Regional Health Security in the Caribbean". [<https://caricom.org/working-towards-regional-health-security-in-the-caribbean/>]. Accessed 30 August 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

Does the county have signatory and ratification (or same legal effect) status to the Biological Weapons Convention?

Signed and ratified (or action having the same legal effect) = 2, Signed = 1, Non-compliant or not a member = 0

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

Has the country submitted confidence building measures for the Biological Weapons Convention in the past three years?

Yes = 1, No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

Has the state provided the required United Nations Security Council Resolution (UNSCR) 1540 report to the Security Council Committee established pursuant to resolution 1540 (1540 Committee)?

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

Extent of United Nations Security Council Resolution (UNSCR) 1540 implementation related to legal frameworks and enforcement for countering biological weapons:

Very good (60+ points) = 4, Good (45–59 points) = 3, Moderate (30–44 points) = 2, Weak (15–29 points) = 1, Very weak (0–14 points) or no matrix exists/country is not party to the BWC = 0

Current Year Score: 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: 0

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

5.4.1b

Has the country completed and published, within the last five years, either a National Action Plan for Health Security (NAPHS) to address gaps identified through the Joint External Evaluation (JEE) assessment or a national GHSA roadmap that sets milestones for achieving each of the GHSA targets?

Yes = 1, No = 0

Current Year Score: 0

2021

WHO Strategic Partnership for IHR and Health Security (SPH); Global Health Security Agenda

5.4.2 Completion and publication of a Performance of Veterinary Services (PVS) assessment and gap analysis

5.4.2a

Has the country completed and published a Performance of Veterinary Services (PVS) assessment in the last five years?

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

Has the country completed and published a Performance of Veterinary Services (PVS) gap analysis in the last five years?

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

Is there evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that the Bahamas has allocated national funds to improve capacity to address epidemic threats within the past three years. The Fiscal Year 2020/2021 Budget includes an increase to public health allocations specific to COVID-19 response by BSD \$20 million. [1] While the Budget Communications states, "We had to consider the fact that the public health threat is not behind us, and that future public health emergencies could spring up at any time," there is no evidence that funds were allocated to improve capacity to address epidemic threats beyond allocations specific to COVID-19. [1] There is no evidence of allocated national funds to improve capacity to address epidemic threats moving forward available through the Ministry of Health, Ministry of Agriculture, or Public Hospitals Authority. [2, 3, 4]

[1] Commonwealth of the Bahamas. 27 May 2020. "Budget Communication FY 2020/2021".

[<http://www.bahamas.gov.bs/wps/wcm/connect/09671b37-4aed-4601-87bd-5fd970e7aeb3/2020-21+Budget+Communication+-+Final+%281%29-compressed.pdf?MOD=AJPERES>]. Accessed 30 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 30 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 30 August 2020.

[4] Public Hospitals Authority of the Bahamas. [<http://www.phabahamas.org/>]. Accessed 30 August 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 a publicly identified special emergency public financing mechanism and funds that the Bahamas can access in the face of a public health emergency. The Stop Epidemics There and Here (SETH) Fund provides financial support and assistance to the Caribbean Public Health Agency (CARPHA) and its Member States, which includes the Bahamas, in managing outbreaks and emergencies with health and humanitarian consequences. [1] The SETH Fund was started in 2014 at a Caribbean Community (CARICOM) special session to discuss two public health challenges facing the Community: Ebola Virus Disease (EVD); and the Chikungunya outbreak. [1] Activities of the SETH Fund include immediate response interventions against vaccine-preventable diseases and deployment of rapid response personnel during outbreaks, public health emergencies, severe natural disasters, chemical and other events with health consequences. [1] The Bahamas is not eligible for World Bank pandemic financing. [2]

[1] Caribbean Public Health Agency (CARPHA) Foundation. "Stop Epidemics There and Here (SETH) Fund".

[<http://carphafoundation.carpha.org/SETH-Fund>]. Accessed 30 August 2020.

[2] International Development Association (IDA) - World Bank Group. "Borrowing Countries".

[<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 30 August 2020.

5.5.4 Accountability for commitments made at the international stage for addressing epidemic threats

5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:

- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?

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

Current Year Score: 0

There is no evidence that, in the past three years, senior leaders in the Bahamas have made a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support, or to improve its own domestic capacity to address epidemic threats. The Caribbean Public Health Agency (CARPHA) was established in 2013 as the public health agency for the Caribbean Community (CARICOM) and coordinates responses to public health crisis in the Caribbean by providing resources for disease prevention and control strategies in outbreak and epidemic situations. [1, 2] Caribbean Community Member States contribute quotas to make up CARPHA's funding, in addition to funding obtained from partners supporting health and development work in the Caribbean, though there is no publicly available detail on financial or technical commitments the Bahamas has made towards CARPHA. [3] Beyond the regional commitment through CARPHA, there is no evidence that the Bahamas has made a public commitment to support other countries to improve capacity to address epidemic threats from the Global Health Security Funding Tracking Dashboard. [4] The Ministry of Health or Ministry of Foreign Affairs and the Office of the Prime Minister provide no evidence that senior leaders have made a public commitment in the past three years. [5, 6, 7] The Bahamas is not among the countries that contribute to the World Health Organization (WHO)'s Contingency Fund for Emergencies (CFE), and the WHO makes no other mention of this type of public commitment by the Bahamas. [8, 9]

[1] Caribbean Public Health Agency (CARPHA) Foundation. "About CARPHA". [<http://carphafoundation.carpha.org/Who-We-Are/About-CARPHA>]. Accessed 30 August 2020.

[2] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)". [<https://carpha.org/Who-We-Are/Role-and-Function>]. Accessed 30 August 2020.

[3] Caribbean Public Health Agency (CARPHA). "Frequently Asked Questions - How is CARPHA funded?". [<http://carpha.org/who-we-are/faqs>]. Accessed 30 August 2020.

[4] Global Health Security Funding Tracking Dashboard. [<https://tracking.ghscosting.org/#analysis/BS/d>]. Accessed 19 February 2019.

[5] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 30 August 2020.

[6] Ministry of Foreign Affairs of the Bahamas. [<http://mofa.gov.bs/>]. Accessed 30 August 2020.

[7] Office of the Prime Minister - Commonwealth of the Bahamas. [<https://opm.gov.bs/>]. Accessed 30 August 2020.

[8] World Health Organization (WHO). "Contingency Fund for Emergencies (CFE)". [<http://www.who.int/emergencies/funding/contingency-fund/en/>]. Accessed 30 August 2020.

[9] World Health Organization (WHO). [<http://www.who.int/>]. Accessed 30 August 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, in the past three years, the Bahamas has requested financing or technical support to improve the country's domestic capacity to address epidemic threats. The Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker indicates that US \$2.85 million was allocated to the Bahamas between 2014 and 2020, including committed and disbursed funds for IHR capacity building. [1] The Caribbean Public Health Agency (CARPHA) was established in 2013 as the public health agency for the Caribbean Community (CARICOM) and coordinates responses to public health crisis in the

Caribbean by providing resources for disease prevention and control strategies in outbreak and epidemic situations. [2, 3] Caribbean Community Member States contribute quotas to make up CARPHA's funding, in addition to funding obtained from partners supporting health and development work in the Caribbean, though there is no publicly available detail on financial or technical commitments the Bahamas has made towards CARPHA. [4]

[1] Georgetown Global Health Security Tracking Dashboard. "Recipient Profile: The Bahamas.

[https://tracking.ghscosting.org/details/26/recipient]. Accessed 30 August 2020.

[2] Caribbean Public Health Agency (CARPHA) Foundation. "About CARPHA". [http://carphafoundation.carpha.org/Who-We-Are/About-CARPHA]. Accessed 30 August 2020.

[3] Caribbean Public Health Agency (CARPHA). "The Role and Functions of the Caribbean Public Health Agency (CARPHA)".

[https://carpha.org/Who-We-Are/Role-and-Function]. Accessed 30 August 2020.

[4] Caribbean Public Health Agency (CARPHA). "Frequently Asked Questions - How is CARPHA funded?".

[http://carpha.org/who-we-are/faqs]. Accessed 30 August 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 publicly available plan or policy by the Bahamas to share genetic data, epidemiological data or clinical specimens with international organizations and/or other countries that goes beyond influenza. There is no evidence that such an information sharing agreement was created through the Caribbean Public Health Agency (CARPHA). [1] There is no evidence that such an information sharing agreement was created. There is no evidence of a sharing plan or policy provided by the Ministry of Health or Ministry of Agriculture. [2, 3]

[1] Caribbean Public Health Agency (CARPHA). [https://carpha.org/]. Accessed 27 August 2020.

[2] Ministry of Health of the Bahamas. [www.bahamas.gov.bs/health]. Accessed 27 August 2020.

[3] Ministry of Agriculture and Marine Resources of the Bahamas. [www.bahamas.gov.bs/agriculturemarine]. Accessed 27 August 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 the Bahamas has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years in local media outlets or through the World Health Organisation (WHO). [1]

[1] World Health Organisation (WHO). "Virus sharing". [http://www.who.int/influenza/pip/virus_sharing/en/]. Accessed 20 August 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 evidence that the Bahamas has not shared pandemic pathogen samples during an outbreak in the past two years in media outlets or through the World Health Organization (WHO). [1]

[1] World Health Organization (WHO). "News Releases". [<http://www.who.int/news-room/releases>]. Accessed 20 August 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 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: 1

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 63

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: 3

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: 2

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

Current Year Score: 3

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 99.9

2008-2018

United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO);
The Economist Intelligence Unit

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.65

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: 0.3

2008-2018

World Bank; Economist Impact

6.2.3b

Share of employment in the informal sector

Greater than 50% = 2, Between 25-50% = 1, Less than 25% = 0

Current Year Score: 1

A 2017 Inter-American Development Bank (IDB) report estimating size of the informal sector in the Bahamas at 20-30 percent. [1] A national news outlet covered the release of the report, quoting the Chamber of Commerce's chief executive calling the estimates "too conservative." [2] According to a 2008 working paper from the International Monetary Fund (IMF), the share of employment in the informal sector in the Bahamas was around 15% as of the early 2000s. [3] No more data on share of employment in the informal sector is available for the Bahamas through the ILOSTAT database and the World Bank. [4, 5]

[1] Peters, Amos. August 2017. "Estimating the Size of the Informal Economy in Caribbean States." Inter-American Development Bank, Technical Note No IDB-TN-1248.

[<https://publications.iadb.org/publications/english/document/Estimating-the-Size-of-the-Informal-Economy-in-Caribbean-States.pdf>]. Accessed 20 August 2020.

[2] Hartnell, Neil. 30 August 2017. "Informal Sector'S 1/4 Economy Share May Be 'Too Conservative'". The Tribune. [<http://www.tribune242.com/news/2017/aug/30/informal-sectors-14-economy-share-may-be-too-conse/>]. Accessed 20 August 2020.

[3] International Monetary Fund (IMF). 2008. "Measuring the Informal Economy in Latin America and the Caribbean". [<https://www.imf.org/en/Publications/WP/Issues/2016/12/31/Measuring-the-Informal-Economy-in-Latin-America-and-the-Caribbean-21898>]. Accessed 20 August 2020.

[4] International Labour Organization (ILOSTAT). "Country Profiles". [<https://ilostat.ilo.org/data/country-profiles/>]. Accessed 20 August 2020.

[5] The World Bank. "Informal employment (% of total non-agricultural employment)". [<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS>]. Accessed 20 August 2020.

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 1

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: 1

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.46

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: 2

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: 2

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: 0

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 83.13

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: 73.75

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: 532.3

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 7.48

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 10.9

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 31.6

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: 98.89

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 94.93

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: 1007.0

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