Eswatini

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

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: 1

There is evidence that Eswatini has a national antimicrobial resistance (AMR) plan, but the plan is not publicly available. According to the Joint External Evaluation (JEE) for the Kingdom of Eswatini, conducted in April 2018, AMR surveillance and detection is done at three public laboratories, including the National Reference Laboratory (NRL) and Raleigh Fitkin Memorial Hospital Laboratory, as well as two private facilities. AMR detection for animals is done at the Central Veterinary Laboratory. [1] In December 2017, Eswatini also finalized its "AMR Containment Strategy to Combat Antimicrobial Resistance (2017-2021)" to conform with international standards, although this plan still has not been fully implemented as of November 2020, and it is not publicly available. [1, 2] There is no additional evidence of a national AMR plan through the Ministry of Health, Ministry of Agriculture, or through the Swaziland Health Laboratory Services. [3, 4, 5]. According to the World Health Organisation (WHO) Library of National Action Plans, there is no national action plan for Swaziland. [6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 November 2020.
[2] Kholiwe Shongwe and Shiou-Chu (Judy) Wang. Systems for Improved Access to Pharmaceuticals and Services (SIAPS). "Development of Swaziland's National Antimicrobial Resistance Containment Strategic Plan". [http://siapsprogram.org/wp-content/uploads/2018/03/18-032-AMR-Technical-Report_Jan2018.-V.4.final_.pdf]. Accessed 9 November 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 November 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 November 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 November 2020.
[6] World Health Organisation (WHO). Library of National Action Plans. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 9 November 2020.

1.1.1b

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

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

Current Year Score: 0

There is insufficient evidence that Eswatini maintains a national laboratory system which tests for 7+1 World Health Organisation (WHO) priority antimicrobial resistant (AMR) pathogens, although it is still in the process of setting up sentinel sites according to international standards. According to the Joint External Evaluation (JEE) for the Kingdom of Eswatini, conducted in April 2018, AMR surveillance and detection is done at three public laboratories, including the National Reference Laboratory (NRL) and Raleigh Fitkin Memorial Hospital Laboratory, as well as two private facilities. AMR detection for animals is done at the Central Veterinary Laboratory. According to the report, the National Reference Laboratory conducts 6 International Health Regulations (IHR) core tests for malaria, measles, meningitis, food poisoning, typhoid, and cholera, while the Central Veterinary Laboratory conducts 5 IHR core tests for tuberculosis, highly-pathogenic avian influenza, brucellosis, salmonellosis, and rabies. There is no evidence in the report of testing for the AMR pathogens. [1] The Swaziland Health Laboratory Services, the national laboratory for Swaziland within the Ministry of Health, serves as a reference laboratory for infectious diseases, but there is no indication on its website that it conducts AMR surveillance specifically. [2] In December 2017, Eswatini finalized its "AMR Containment Strategy to Combat Antimicrobial Resistance (2017-2021)" to bring its AMR efforts into conformity with international standards but, as of November 2020, this plan has still not been fully implemented. [1, 3] Although, according to the JEE, Eswatini has designated four laboratories to serve as sentinel sites for AMR surveillance, it has not yet completed this plan. [1] There is no additional evidence of a national laboratory system that tests for priority AMR pathogens through the Ministry of Health, Ministry of Agriculture. [4,5]. According to the World Health Organisation (WHO) Library of National Action Plans, there is no national action plan for Eswatini. [6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 November 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 November 2020.
[3] Kholiwe Shongwe and Shiou-Chu (Judy) Wang. Systems for Improved Access to Pharmaceuticals and Services. "Development of Swaziland's National Antimicrobial Resistance Containment Strategic Plan". [http://siapsprogram.org/wp-content/uploads/2018/03/18-032-AMR-Technical-Report_Jan2018.-V.4.final_.pdf]. Accessed 9 November 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 November 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 November 2020.
[6] World Health Organisation (WHO). Library of National Action Plans. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 9 November 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there is any government agency in Eswatini that conducts environmental detection and surveillance activities for antimicrobial residues and antimicrobial resistant (AMR) organisms. Among its other activities, the Swaziland Health Laboratory Services, the national laboratory for Swaziland, engages in "[e]nvironmental

health and protection" which includes "conduct[ing] scientific analyses of environmental (air, water, and soil) and biological samples in order to identify and monitor potential threats to human health, while ensuring compliance with environmental regulations." [1] However, there is no indication that it specifically tests for antimicrobial residues or AMR organisms. According to the Joint External Evaluation (JEE), conducted in April 2018, the Eswatini Environment Authority (which replaced the Swaziland Environment Authority [SEA]) is responsible for managing environmental surveillance and response, but there is no specific mention of detection or surveillance for antimicrobial residues or AMR organisms. [2,3] Neither the Ministry of Tourism and Environmental Affairs or the Ministry of Natural Resources and Energy, which both handle different aspects of environmental protection, conduct environmental monitoring for antimicrobial residues or AMR organisms. [4,5] The Ministry of Agriculture, which maintains a soil testing unit, does not appear to include surveillance for antimicrobial organisms. [6] Likewise, the Ministry of Health environmental health unit does not appear to test for antimicrobial organisms. [7] According to the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) "Development of Swaziland's National Antimicrobial Resistance Containment Strategic Plan" report, one of the goals of "AMR Containment Strategy to Combat Antimicrobial Resistance (2017-2021)", drafted in December 2017, is to establish environmental testing and surveillance for AMR organisms, but the strategy document has still not been finalised as at November 2020. [8] There is no additional information regarding a governmental agency that conducts environmental detection and surveillance for antimicrobial residues and AMR organisms through the Ministry of Health or Ministry of Agriculture. [9,10] There is no national action plan for Eswatini listed in the World Health Organisation (WHO) Library of National Action Plans. [11]

[1] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 November 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 November 2020.
[3] Swaziland Environment Authority. [http://www.sea.org.sz/]. Accessed 9 November 2020.
[4] Ministry of Tourism and Environmental Affairs of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-tourims-environments-a-communications]. Accessed 9 November 2020.
[5] Ministry of Natural Resources and Energy of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-natural-resources]. Accessed 9 November 2020.
[6] The Ministry of Agriculture of the Kingdom of Eswatini. "Services". [http://www.gov.sz/index.php/services-sp-1716394863]. Accessed 9 November 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. "Environmental Health: Documents". [http://www.gov.sz/index.php/health-documents/73-health/health/1520-environmental]. Accessed 9 November 2020.
[8] Kholiwe Shongwe and Shiou-Chu (Judy) Wang. Systems for Improved Access to Pharmaceuticals and Services. "Development of Swaziland's National Antimicrobial Resistance Containment Strategic Plan". [http://siapsprogram.org/publication/altview/development-of-swazilands-national-antimicrobial-resistance-containment-strategic-plan/english/]. Accessed 9 November 2020.
[9] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 November 2020.
[10] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 November 2020.
[11] World Health Organisation (WHO). Library of National Action Plans. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 9 November 2020.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 1

Eswatini has national legislation in place requiring prescriptions for antibiotic use in humans, but there is evidence the legislation is not being adequately enforced. According to the Joint External Evaluation (JEE), conducted in April 2018, prescriptions are required for antibiotic use in humans in Eswatini. It is, however, possible for antibiotics to be purchased without one due to poor enforcement of the relevant legislation. The report also states that there is a national policy document promoting the appropriate use of antibiotics in Eswatini; the Standard Treatment Guidelines to Regulate and Promote Rational Use of Antibiotics (2012), but there is no other public evidence of this document. [1] There is no indication that prescriptions are required through the Ministry of Health's Department of Pharmaceuticals and Medicines, its list of regulations, or its documents section. [2, 3, 4] There is no other information regarding a national requirement for prescriptions for antibiotic use in humans through the Ministry of Health or the Swaziland Legal Information Institute. [5, 6] According to the World Health Organisation (WHO) Library of National Action Plans, there is no national action plan for Eswatini. [7] there is no other publicly available evidence in media sources to show that legislation is now being adequately enforced.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 15 November 2020.
[2] Ministry of Health of the Kingdom of Eswatini. Department of Pharmaceuticals and Medicines. [http://www.gov.sz/index.php/3rd-national-health-and-research-conference]. Accessed 15 November 2020.
[3] Ministry of Health of the Kingdom of Eswatini. "Documents". [http://www.gov.sz/index.php/health-documents]. Accessed 15 November 2020.
[4] Ministry of Health of the Kingdom of Eswatini. "Bills". [http://www.gov.sz/index.php/departments-sp-654042511/legislation]. Accessed 15 November 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 15 November 2020.
[6] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 15 November 2020.
[7] World Health Organisation (WHO). Library of National Action Plans. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 15 November 2020.

1.1.2b

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

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

Current Year Score: 1

There is publicly available evidence that Eswatini has national legislation place requiring prescriptions for antibiotic use for animals, but there is evidence the legislation is not being adequately enforced. According to the Joint External Evaluation (JEE), conducted in April 2018, prescriptions are required for antibiotic use in animals in Eswatini, but it is possible for antibiotics to be purchased without one due to poor enforcement of the relevant legislation. Additionally, the report states that there is a national policy document promoting the appropriate use of antibiotics in Swaziland, the Standard Treatment Guidelines to Regulate and Promote Rational Use of Antibiotics (2012), but there is no other public evidence of this

document and no indication that prescriptions are required. [1] The Ministry of Agriculture's Department of Veterinary and Livestock Production list of policies and acts does not include any indication that prescriptions are required for antibiotics. [2] There is no other information regarding a national requirement for prescriptions for antibiotic use in animals through the Ministry of Agriculture or the Swaziland Legal Information Institute. [3, 4] According to the World Health Organisation (WHO) Library of National Action Plans, there is no national action plan for Swaziland. [5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 15 November 2020.
[2] Ministry of Agriculture of the Kingdom of Eswatini. Department of Veterinary and Livestock Production. "Policies and Acts". [http://www.gov.sz/index.php/departments-sp-741563992/veterinary-livestock-production-services/80-agriculture/agriculture/1629-policies-and-acts]. Accessed 15 November 2020.
[3] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 15 November 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 15 November 2020.
[5] World Health Organisation (WHO). Library of National Action Plans. [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 15 November 2020.

1.2 ZOONOTIC 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 Eswatini has a national law, plan, or equivalent strategy document on zoonotic disease. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini conducts extensive surveillance of many zoonotic diseases, including bovine spongiform encephalopathy, brucellosis, cysticercosis, echinococcosis, rabies, Rift Valley fever, salmonellosis and tuberculosis, but not all of these are considered to be of concern to human health and there seems to be a mismatch between the priorities of the Ministry of Agriculture (MoA) with those of the Ministry of Health. [1] The Ministry of Health maintains a National Malaria Control Programme. [2] The MoA website states that "The mandate of the Department of Veterinary and Livestock Services is to prevent the spread of animal diseases and zoonoses" but there is no mention of a law, plan or strategy upholding this. [3] There is no other evidence of a plan or strategy to address zoonotic diseases through the Ministry of Health or the Ministry of Agriculture. [4,5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 15 November 2020.
[2] Ministry of Health of the Kingdom of Eswatini. National Malaria Control Programme. [http://www.gov.sz/index.php/departments-sp-654042511?id=560]. Accessed 15 November 2020.
[3] Ministry of Agriculture. [http://www.gov.sz/index.php/departments-sp-741563992/veterinary-livestock-production-services]. Accessed 15 November 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 15 November 2020.

[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 15 November 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has national legislation, plans or equivalent strategy document(s) which include measures for risk identification and reduction for zoonotic disease spill-over events from animals to humans. There is no mention of risk identification or spill-over events in the web sites of the ministries of Health or Agriculture, the 2018 Joint External Evaluation (JEE) or in the 2020 World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus for Eswatini. [1,2,3,4]

[1] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 15 November 2020.
[2] Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 15 November 2020.
[3] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[4] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 15 November 2020.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a national plan, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini conducts extensive surveillance of many zoonotic diseases, including bovine spongiform encephalopathy, brucellosis, cysticercosis, echinococcosis, rabies, Rift Valley fever, salmonellosis and tuberculosis, but not all of these are considered to be of concern to human health, and there seems to be a mismatch between the priorities of the Ministry of Agriculture (MoA) with those of the Ministry of Health. [1] The Ministry of Health maintains a National Malaria Control Program, but this does not appear to extend to other zoonotic diseases generally. [2] There is no other evidence of plans, guidelines or laws to address zoonotic diseases through the Ministry of Health or the Ministry of Agriculture. [3, 4]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 15 November 2020.
[2] Ministry of Health of the Kingdom of Eswatini. National Malaria Control Programme.

[http://www.gov.sz/index.php/departments-sp-654042511?id=560]. Accessed 15 November 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 11 March 2019.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 15 November 2020.

1.2.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries. According to the Joint External Evaluation (JEE), conducted in April 2018, both the Ministry of Health and the Ministry of Agriculture conduct separate epidemiological surveillance on zoonoses, but their priorities often differ. Although there is "regular informal collaboration between the epidemiology unit in the animal health sector and the corresponding unit within the Ministry of Health, the Epidemiology and Disease Control Unit (EDCU)," this contact only occurs once a month and only covers three zoonoses. [1] The Ministry of Agriculture Department of Veterinary and Livestock Production Services is in part responsible for "prevent[ing] the spread of animal diseases and zoonoses [and] promot[ing] animal health and welfare." [2] However, there is no evidence that it functions across ministries. The Epidemiology Department in the Ministry of Health tracks the spread of infectious diseases, but there is no specific reference to zoonoses or a cross-ministry function. [3] The 2020 National Contingency Plan for Novel Corona Virus states that the National Public Health Emergency Management Committee (NPHEMC) "should be activated with engagement of relevant ministries such as health, education, travel and tourism, public works, environment, social protection, and agriculture, to provide coordinated management of COVID-19 preparedness and response" but this is clearly disease and event specific. [4] Neither the World Organisation for Animal Health (OIE) Performance of Veterinary Services report for Swaziland, drafted in September 2007, or the follow-up report, drafted in May 2015, indicate that there is a governmental ministry or agency covering zoonoses in Eswatini that functions across ministries. [5,6] There is no other indication of an agency that covers zoonoses across ministries through the Ministry of Health and Ministry of Agriculture. [7,8]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 15 November 2020.
[2] The Ministry of Agriculture of the Kingdom of Eswatini. Department of Veterinary and Livestock Services. [http://www.gov.sz/index.php/departments-sp-741563992/veterinary-livestock-production-services]. Accessed 15 November 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. Department of Epidemiology. [http://www.gov.sz/index.php/departments-sp-654042511?id=559]. Accessed 15 November 2020.
[4] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]
[5] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 15 November 2020.
[6] World Organisation for Animal Health (OIE). May 2015. "Swaziland: OIE PVS Evaluation Follow-Up Mission Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/20150810_PVSEvaluation_FinalReport_Swaziland.pdf]. Accessed 15 November 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-

health]. Accessed 15 November 2020.
[8] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 15 November 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 1

Eswatini does have a national mechanism for owners of livestock to report on disease surveillance to a central government agency. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini conducts its animal health disease surveillance through the Swaziland Livestock Identification and Traceability System (SLITS) which coordinates regional and national reporting with international public health authorities. [1] According to the World Organisation for Animal Health (OIE) Performance of Veterinary Services (PVS) evaluation report follow-up from May 2015, the SLITS database is also used by owners of livestock to identify and trace their animals and also report on their health to central authorities. [2] All owners of livestock are required to report to certain "diptank" centres for disease inspection under supervision of specially trained animal health technicians, and they are subject to criminal penalty for failing to comply under the Livestock Identification Act (2001). [2, 3]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 15 November 2020.
[2] World Organisation for Animal Health (OIE). May 2015. "Swaziland: OIE PVS Evaluation Follow-Up Mission Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/20150810_PVSEvaluation_FinalReport_Swaziland.pdf]. Accessed 15 November 2020.
[3] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 15 November 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information regarding laws or guidelines that safeguard the confidentiality of information generated through surveillance activities of animals in Eswatini. DataGuidance, the global legal reference group, stated in an August 2020 article that "There is currently a piece of legislation termed the Data Protection Bill No. 21/2017 ('the Data Protection Bill') which seeks to collate all existing data protection legislation, but it has not been promulgated into law as yet. Swaziland recognises and protects the right of a data subject to their personal information. Consequently, the processing (collection, use, and disclosure) of information concerning a legal person whether by means of computer processing or other processing can only be done with the specific consent of the data subject." The bill is still awaiting processing. [1] The

Veterinary Public Health Act (2013), which establishes some surveillance programs for animal health, contains a general confidentiality provision safeguarding information related to the "business or affairs of a person" in furtherance of the act, but it is not clear how the exemptions allowing for confidentiality to be breached "as may be necessary for the proper application of the provisions of the act" and "where the minister authorises the disclosure" would affect rights arising under SLITS surveillance. [2] None of the national 'Swaziland Livestock Information and Traceability System' (SLITS) website, the Joint External Evaluation (JEE), conducted in April 2018, nor the World Organisation for Animal Health (OIE) Performance of Veterinary Services (PVS) mission report (September 2007) or follow-up report (May 2015) mention any safeguards for the owners of animals when conducting animal health surveillance activities. [3,4,5,6] There is no other information regarding a safeguard for information gathered through surveillance activities through the Ministry of Health, Ministry of Agriculture, or the Swaziland Legal Information Institute. [7,8,9]

[1] DataGuidance. August 2020. 'Overview of the privacy/data protection situation'. [https://www.dataguidance.com/notes/eswatini-data-protection-overview]. 16 November 2020.
[2] The Veterinary Public Health Act. 1 August 2013. [http://www.gov.sz/images/veterinary%20public%20health%20act_%202013.pdf]. Accessed 16 November 2020.
[3] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 16 November 2020.
[4] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 16 November 2020.
[5] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 16 November 2020.
[6] World Organisation for Animal Health (OIE). May 2015. "Swaziland: OIE PVS Evaluation Follow-Up Mission Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/20150810_PVSEvaluation_FinalReport_Swaziland.pdf]. Accessed 11 March 2019.
[7] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 16 November 2020.
[8] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 16 November 2020.
[9] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 16 November 2020.

1.2.2c

Does the country conduct surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors)?
Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Eswatini conducts surveillance of zoonotic disease in wildlife. The Joint External Evaluation (JEE), conducted in April 2018, states that the Aquatic Animal Diseases and Wildlife Surveillance within the Ministry of Agriculture coordinates disease surveillance in wildlife, however there is no additional information. The report also states, however, that "Collaboration needs to be strengthened between all stakeholders involved in zoonotic diseases surveillance and control, in particular between the MoH and the MoA". [1] The World Organisation for Animal Health (OIE) Performance of Veterinary Services (PVS) follow-up report, published in May 2015, states that the Ministry of Agriculture's Department of Veterinary and Livestock Services "conduct[s] active surveillance in compliance with scientific principles and OIE standards for some relevant diseases and apply it to all susceptible populations but do[es] not update it regularly." In addition, this

Department performs some surveillance functions on wildlife in coordination with two private sector organisations dedicated to wildlife conservation; Big Game Parks and the Swaziland National Trust Commission. [2] This coordination, however, appears to be largely on an ad hoc and informal basis, and is limited to foot-and-mouth disease response. According to the report, there is no indication that the electronic animal health disease surveillance system for Swaziland, the Swaziland Livestock Information and Traceability System (SLITS), covers wildlife. [3] There is no additional information regarding a wildlife surveillance programme in Swaziland through the Ministry of Health or the Ministry of Agriculture. [4, 5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 16 November 2020.
[2] World Organisation for Animal Health (OIE). May 2015. "Swaziland: OIE PVS Evaluation Follow-Up Mission Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/20150810_PVSEvaluation_FinalReport_Swaziland.pdf]. Accessed 16 November 2020.
[3] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 16 November 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 16 November 2020.
[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 16 November 2020.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

Has the country submitted a report to OIE on the incidence of human cases of zoonotic disease for the last calendar year?
Yes = 1 , No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people
Input number

Current Year Score: 3.4

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 85.27

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a national plan on zoonotic disease or other legislation, regulation, or plan that includes a mechanism for working with the private sector in controlling or responding to zoonoses. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini conducts extensive surveillance of many zoonotic diseases, including bovine spongiform encephalopathy, brucellosis, cysticercosis, echinococcosis, rabies, Rift Valley fever, salmonellosis and tuberculosis, but not all of these are considered to be of concern to human health. There is no mention of inclusion of the private sector. [1] The Ministry of Health maintains a National Malaria Control Programme, but this does not appear to extend to other zoonotic diseases or include the private sector. [2] According to the World Organisation for Animal Health (OIE) Performance of effective Veterinary Services report, published in September 2007, the Ministry of Agriculture Department of Veterinary and Livestock Services "has neither the authority nor the capability to accredit / authorise / delegate the private sector to carry out official tasks." [3] The OIE PVS follow-up report, published in May 2015, noted that "[t]here is little opportunity to delegate official tasks to the private sector because of the very small size of the private sector." [4] There is no other evidence of a plan or strategy to address zoonotic diseases through the Ministry of Health or the Ministry of Agriculture. [5, 6] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 16 November 2020.
[2] Ministry of Health of the Kingdom of Eswatini. National Malaria Control Programme. [http://www.gov.sz/index.php/departments-sp-654042511?id=560]. Accessed 16 November 2020.
[3] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 16 November 2020.
[4] World Organisation for Animal Health (OIE). May 2015. "Swaziland: OIE PVS Evaluation Follow-Up Mission Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/20150810_PVSEvaluation_FinalReport_Swaziland.pdf]. Accessed 16 November 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 16 November 2020.
[6] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-

of-agriculture]. Accessed 16 November 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a record, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored or processed. According to the Joint External Evaluation (JEE), conducted in April 2018, although Swaziland has a number of biosafety containment procedures in place, it does not currently have a biosecurity plan or system in place. [1] Although the World Organisation for Animal Health (OIE) Performance of effective Veterinary Services (PVS) evaluation report, conducted in September 2007, noted that the Ministry of Agriculture Department of Veterinary and Livestock Services has "implemented biosecurity measures that enable it to establish and maintain a disease free zone for selected animals and animal products, as necessary," there is no indication of a facility in which especially dangerous pathogens and toxins are stored. [2] There is no additional information regarding a record in Swaziland of the facilities in which especially dangerous pathogens and toxins are stored and processed through the Ministry of Health, Ministry of Agriculture, Swaziland Health Laboratory Services, the Royal Eswatini Police Service or on the VERTIC Legislation Database. [3,4,5,6,7] Neither the Ministry of Defence or the national laboratory system has an online presence and there is no existing Public Health Institute. A March 2018 document on laboratory biosafety and biosecurity in the Southern African Development Community (SADC) region makes no mention of such a record. [8] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [9]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 17 November 2020.
[2] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 17 November 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 17 November 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 17 November 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 17 November 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 17 November 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 17 November 2020.
[8] South Africa Department of Science and Technology. 20 March 2018. 'The state of laboratory biosafety and biosecurity in

the Southern African Development Community (SADC) region'. [https://www.nepadsanbio.org/sites/default/files/2018-08/2018_assaf_State%20of%20Laboratory%20Biosafety%20%20Biosecurity%20in%20the%20SADC%20Region%20-%20Proceedings%20Report.pdf]. Accessed 17 November 2020.
[9] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 17 November 2020.

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has legislation or regulations in place related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems, or cybersecurity of facilities in which especially dangerous pathogens or toxins are stored. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has acceded to the Biological and Toxic Weapon Convention (BWC), the Cartagena Protocol on Biosafety, and the Convention on Biological Diversity. [1] However, there is no evidence of biosecurity legislation which address the requirements mentioned besides the use of biometrics "to prevent access to biological specimens by unauthorized people." [1] Additionally, the Suppression of Terrorism Bill of 2008 prohibits the use of weaponized use of biological pathogens and toxins, but there is no indication that the bill addresses the requirements mentioned. [2] The Ministry of Health website provides standard operating procedures for handling medical waste, including guidance on the categories of biohazard, but there is no information regarding physical containment, operation practices, failure reporting systems, or cybersecurity. [3] There is no additional information regarding legislation or regulations related to biosecurity in Eswatini through the Ministry of Health, Ministry of Agriculture, Swaziland Health Laboratory Services, the Swaziland Legal Information Institute or on the VERTIC Legislation Database. [3,4,5,6,7] Neither the Ministry of Defence or the national laboratory system has an online presence and there is no existing Public Health Institute. Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 17 November 2020.
[2] Bill No. 5 of 2008: Suppression of Terrorism. 11 April 2008. [http://www.vertic.org/media/National%20Legislation/Swaziland/SZ_Suppression_Terrorism_Bill_2008.pdf]. Accessed 17 November 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. "Documents". [http://www.gov.sz/index.php/health-documents/73-health/health/1520-environmental]. Accessed 17 November 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 17 November 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 17 November 2020.
[6] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 17 November 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 17 November 2020.

[8] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 17 November 2020.

1.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has an established agency responsible for the enforcement of biosecurity legislation and regulations. According to the Joint External Evaluation (JEE), conducted in April 2018, although Swaziland has a number of biosafety containment procedures in place that are organized by the Biosafety Advisory Committee, it does not currently have a biosecurity plan or system. Additionally, the report notes that it is not clear which ministries are the "custodians of the Biological Weapons Convention and Suppression of Terrorism Act (2008)" in Swaziland. [1] The Veterinary Public Health Act (2013) includes provisions for adopting "control measures" when creating animal products for human consumption in order to contain animal diseases and prevent the spread of contagious diseases to humans, including taking precautionary measures when introducing new animals to farms and reporting incidences of disease, but there is no indication of a specific regulatory body to direct and oversee these measures. [2] According to the World Organisation for Animal Health (OIE) Performance for effective Veterinary Services (PVS) mission report, published in September 2007, the Ministry of Agriculture Department of Veterinary and Livestock Services has "implemented biosecurity measures that enable it to establish and maintain a disease free zone for selected animals and animal products, as necessary," but there is no publicly available evidence of these measures. [3] There is no additional information regarding an established agency responsible for the enforcement of biosecurity legislation and regulations in Eswatini through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services or on the VERTIC Legislation Database. [4,5,6,7] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 30 November 2020.
[2] The Veterinary Public Health Act. 1 August 2013. [https://members.wto.org/crnattachments/2019/SPS/SWZ/19_6404_00_e.pdf] Accessed 30 November 2020.
[3] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 30 November 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 30 November 2020.
[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 30 November 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 30 November 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[8] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 30 November 2020.

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has taken action to consolidate its inventories of especially dangerous pathogens and toxins. According to the Joint External Evaluation (JEE), conducted in April 2018, although Eswatini has a number of biosafety containment procedures in place that are organized by the Biosafety Advisory Committee, it does not currently have a biosecurity plan or system. The report also states that while the National Reference Laboratory and Central Veterinary Laboratory utilize simple physical security measures such as the use of biometrics to "prevent access to biological specimens by unauthorized people," there is no indication of an effort to consolidate inventories of especially dangerous pathogens and toxins. [1] The Veterinary Public Health Act (2013) includes provisions for adopting "control measures" when creating animal products for human consumption in order to contain animal diseases and prevent the spread of contagious diseases to humans, including taking precautionary measures when introducing new animals to farms and reporting incidences of disease, but there is no indication of a specific actions taken to consolidate dangerous pathogens. [2] According to the World Organisation for Animal Health (OIE) Performance for effective Veterinary Services (PVS) mission report, published in September 2007, the Ministry of Agriculture Department of Veterinary and Livestock Services has "implemented biosecurity measures that enable it to establish and maintain a disease free zone for selected animals and animal products, as necessary," but there is no publicly available evidence of these measures. [3] There is no additional information regarding an established agency responsible for the enforcement of biosecurity legislation and regulations in Swaziland through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services or on the VERTIC Legislation Database. [4,5,6,7] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 30 November 2020.
[2] The Veterinary Public Health Act. 1 August 2013. [https://members.wto.org/crnattachments/2019/SPS/SWZ/19_6404_00_e.pdf] Accessed 30 November 2020.
[3] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 30 November 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 30 November 2020.
[5] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 30 November 2020.
[6] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 30 November 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[8] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 30 November 2020.

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Eswatini has the in-country capacity to conduct polymerase chain reaction (PCR)-based diagnostic testing for anthrax or Ebola. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has simulated Ebola preparedness and response drills in recent years, but there is no indication that its laboratories have the capacity to conduct PCR diagnostic testing for either Ebola or anthrax. [1] Likewise, there is no information regarding the capacity to conduct PCR-based diagnostic testing for Ebola or anthrax through the Ministry of Health Epidemiology and Disease Control Unit or the Emergency Preparedness and Response Department. [2, 3] While scientific studies have noted Eswatini's ability to conduct PCR-based tests for both malaria and HIV infections, and there is PCR testing for Covid-19, there is no evidence of the capacity to address Ebola or anthrax. [4,5,6] There is no additional evidence regarding the in-country capacity to conduct PCR-based diagnostic testing for anthrax or Ebola through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, or the Royal Eswatini Police Services. [7,8,9,10] Neither the Ministry of Defence or the national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 30 November 2020.
[2] The Ministry of Health. Department of Epidemiology. [http://www.gov.sz/index.php/departments-sp-654042511?id=559]. Accessed 30 November 2020.
[3] The Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 30 November 2020.
[4] Hsiang, Michelle, et al. PLoS ONE. January 2012. "Surveillance for Malaria Elimination in Swaziland: A National Cross-Sectional Study Using Pooled PCR and Serology". [https://www.researchgate.net/publication/221741573_Surveillance_for_Malaria_Elimination_in_Swaziland_A_National_Cross-Sectional_Study_Using_Pooled_PCR_and_Serology]. Accessed 30 November 2020.
[5] Kerschberger, B., et al. BMC Infectious Diseases. 14 November 2018. "Field suitability and diagnostic accuracy of the Biocentric® open real-time PCR platform for plasma-based HIV viral load quantification in Swaziland.". [https://www.ncbi.nlm.nih.gov/pubmed/30428850]. Accessed 30 November 2020.
[6] Kingdom of Eswatini travel advisory. September 2020. [https://ambmaputo.esteri.it/ambasciata_maputo/resource/doc/2020/11/kingdom_of_eswatini_covid-19_travel_advisory_-_29_sept_2020.pdf]. Accessed 30 November 2020.
[7] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 30 November 2020.
[8] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 30 November 2020.
[9] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 30 November 2020.
[10] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 30 November 2020.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini requires biosecurity training, using a standardized, required approach, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. According to the Joint External Evaluation (JEE), conducted in April 2018, although Swaziland has a number of biosafety containment procedures in place that are organized by the Biosafety Advisory Committee, it does not currently have a biosecurity plan, system, or required trainings. Training on biosafety is conducted at the national laboratory level and within public health units, but there is no indication of specific procedures to biosecurity concerns. The report also states that while the National Reference Laboratory and Central Veterinary Laboratory utilize simple physical security measures such as the use of biometrics to "prevent access to biological specimens by unauthorized people," there is no indication that it mandates standardized trainings. [1] The Ministry of Health website provides standard operating procedures for handling medical waste, including guidance on the categories of biohazard, but there is no indication that this training is standardized or required. [2] The Veterinary Public Health Act (2013) includes provisions for adopting "control measures" when creating animal products for human consumption in order to contain animal diseases and prevent the spread of contagious diseases to humans, including taking precautionary measures when introducing new animals to farms and reporting incidences of disease, but there is no indication of a specific training required of personnel working in these facilities. [3] The Swaziland Health Laboratory Services also supply "[t]raining and education; oversee provision and facilitation of training courses and workshops for staff in both private and public sector laboratory, developing the knowledge and skills essential for providing quality services across medical, environmental, and public health laboratories," but there is no indication that this training is standardized or regularized. [4] According to the World Organisation for Animal Health (OIE) Performance for effective Veterinary Services (PVS) mission report, published in September 2007, the Ministry of Agriculture Department of Veterinary and Livestock Services has "implemented biosecurity measures that enable it to establish and maintain a disease free zone for selected animals and animal products, as necessary," but there is no publicly available evidence of these measures. [5] The Fleming Fund Country Grant to Eswatini, which is running from Mar 2020 - Sep 2021, and focuses on "strengthening surveillance systems for antimicrobial resistance (AMR), antimicrobial use (AMU), and antimicrobial consumption (AMC)", includes in its aims "appropriate training and monitoring systems for biosafety and biosecurity." There is no indication, however, if this training is standardized or has become a national requirement [6] There is no additional information regarding biosecurity training in Swaziland through the Ministry of Health, the Ministry of Agriculture or on the VERTIC Legislation Database. [7,8,9] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [10] Neither the Ministry of Defence or the national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 1 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. "Documents". [http://www.gov.sz/index.php/health-documents/73-health/health/1520-environmental]. Accessed 1 December 2020.
[3] The Veterinary Public Health Act. 1 August 2013. [http://www.gov.sz/images/veterinary%20public%20health%20act_%202013.pdf]. Accessed 1 December 2020.

[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[5] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 1 December 2020.
[6] Fleming Fund Country Grant to Eswatini. August 2019. [https://www.flemingfund.org/wp-content/uploads/9b7763a44ab8eff2c5746ecdfe5bb495.pdf]. Accessed 30 November 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.
[8] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[9] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[10] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 1 December 2020.

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is no publicly available evidence of regulations or licensing conditions that specify 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 and mental fitness checks. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has acceded to the Biological and Toxic Weapon Convention (BWC), the Cartagena Protocol on Biosafety, and the Convention on Biological Diversity. In additional Eswatini's Biosafety Act of 2012 was amended in 2017 to include biosafety regulations. There is, however, no evidence of biosecurity legislation or licensing conditions in place for personnel with access to facilities in which especially dangerous pathogens or toxins are stored besides the use of biometrics "to prevent access to biological specimens by unauthorized people." [1] The Veterinary Public Health Act (2013) includes provisions for adopting "control measures" when creating animal products for human consumption in order to contain animal diseases and prevent the spread of contagious diseases to humans, including taking precautionary measures when introducing new animals to farms and reporting incidences of disease, but there is no indication of specific regulations. [2] According to the World Organisation for Animal Health (OIE) Performance for effective Veterinary Services (PVS) mission report, published in September 2007, the Ministry of Agriculture Department of Veterinary and Livestock Services has "implemented biosecurity measures that enable it to establish and maintain a disease free zone for selected animals and animal products, as necessary," but there is no publicly available evidence of these measures. [3] There is no additional information regarding legislation or regulations related to personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential in Swaziland through the Ministry of Health, Ministry of Agriculture, Swaziland Health Laboratory Services, the Swazi Legal Information Institute or on the VERTIC Legislation Database. [4, 5, 6, 7,8] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the

country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [9]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 1 December 2020.
[2] The Veterinary Public Health Act. 1 August 2013. [http://www.gov.sz/images/veterinary%20public%20health%20act_%202013.pdf]. Accessed 1 December 2020.
[3] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 1 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.
[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[7] The Swazi Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 1 December 2020.
[8] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[9] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 1 December 2020.

1.3.4 Transportation security

1.3.4a

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence of national regulations on the safe and secure transport of infectious substances in Eswatini. The Ministry of Health provides guidance and standard operating procedures for the handling of medical waste, including the proper disposal and transportation of Category A and Category B infectious substances. This guidance includes packaging regulations and other best practices. [1, 2, 3] There is no additional information regarding the safe and secure transport of infectious substances through the Ministry of Health, Ministry of Agriculture, the Ministry of Public Works and Transport, the Swaziland Health Laboratory Services, the Royal Eswatini Police Service or on the VERTIC Legislation Database. [4,5,6,7,8,9] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence-Building Measures reports in accordance with decisions of BWC Review Conferences. [10]

[1] The Ministry of Health of the Kingdom of Eswatini. "Documents". [http://www.gov.sz/index.php/health-documents/73-health/health/1520-environmental]. Accessed 1 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. February 2013. "National Health Care Waste Management Guidelines". [http://www.gov.sz/images/Health/swaziland%20national%20hcwm%20guidelines.pdf]. Accessed 1 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. 7 November 2013. "Laboratory Waste Management Guidelines".

[http://www.gov.sz/images/Health/swazilaboratoryguideline.pdf]. Accessed 1 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.
[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[6] The Ministry of Public Works and Transport of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-public-works-a]. Accessed 1 December 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[8] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 1 December 2020.
[9] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[10] Biological Weapons Convention. "Confidence-Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 1 December 2020.

1.3.5 Cross-border transfer and end-user screening

1.3.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini 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. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has the National Sample Transport System, "a good sample/specimen transport system with dedicated vehicles managed by staff trained in specimen referral and laboratory testing systems for priority diseases." [1] A courier system is used by the national laboratory to transport infectious substances which is "excellent," but transportation of specimens outside the country for advanced diagnostic testing has been dependent on World Health Organisation (WHO) financial support which was coming to an end in the near future. [1] Additionally, there is no information regarding cross-border transfer of specimens through the Swaziland Health Laboratory Service's "National Sample Transportation System (NSTS) Policy and Procedure Manual," dated January 2016, or a focus on the screening of samples containing especially dangerous pathogens and toxins. [2] There is no additional information regarding national legislation or regulations in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential through the Ministry of Health, Ministry of Agriculture, Ministry of Public Works and Transport, Swaziland Health Laboratory Services, the Royal Eswatini Police Service or on the VERTIC Legislation Database. [3, 4, 5, 6, 7,8] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [9] The Ministry of Defence has no online presence.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 1 December 2020.
[2] Swaziland Health Laboratory Service. 4 January 2016. "National Sample Transportation System (NSTS) Policy and Procedure Manual". [http://www.stoptb.org/WG/gli/assets/documents/srt/Swaziland%20-

%20National%20Sample%20Transportation%20System%20(NSTS)%20Policy%20and%20Procedure%20Manual_2016.pdf]. Accessed 1 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[5] The Ministry of Public Works and Transport of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-public-works-a]. Accessed 1 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[7] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 1 December 2020.
[8] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[9] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 1 December 2020.

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Eswatini has national biosafety legislation and regulations in place. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini's Biosafety Act of 2012 has been implemented, and subsequently amended to the Biosafety Regulations in 2017. [1, 2] This Act empowers the Eswatini Environment Authority to be the national focal point for biosafety and establishes Biosafety Advisory Committee to provide guidance to relevant stakeholders. The Act is, however, specific to genetically modified organisms (GMOs). The JEE also states that the National Reference Laboratory and Central Veterinary Laboratory maintain biosafety containment levels and other physical safety procedures, such as biometric access to their facilities. It notes "Some elements of biosecurity have been incorporated into the biosafety regulations. However, the focus is primarily limited to agricultural interests". [1] There is no other evidence of biosafety legislation through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, the Swazi Legal Information Institute or on the VERTIC Legislation Database. [3, 4, 5, 6, 7] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 1 December 2020.
[2] The Biosafety Act of 2012. [https://bch.cbd.int/database/record.shtml?documentid=106001]. Accessed 1 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.

[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[6] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 1 December 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[8] Biological Weapons Convention. "Confidence-Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 1 December 2020.

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Eswatini has an established agency responsible for the enforcement of biosafety legislation and regulations. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini implemented the Eswatini Biosafety Act of 2012, which was recently amended as the Biosafety Regulations in 2017. This Act empowers the Eswatini Environment Authority (EEA) to be the national focal point for biosafety and establishes the Biosafety Advisory Committee to provide guidance to relevant stakeholders. The Act, however, is specific to GMOs rather than as defined for the purpose of this study. [1,2] The JEE further states that the National Reference Laboratory and Central Veterinary Laboratory also maintain biosafety containment levels and other physical safety procedures, such as biometric access to their facilities, but there is no mention of an agency to enforce these procedures. [1] There is no other evidence of an agency that enforces biosafety legislation and regulations through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, the Swazi Legal Information Institute or on the VERTIC Legislation Database. [3, 4, 5, 6, 7] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 2 December 2020.
[2] The Biosafety Act of 2012. [https://bch.cbd.int/database/record.shtml?documentid=106001]. Accessed 2 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 2 December 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 2 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 2 December 2020.
[6] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 2 December 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[8] Biological Weapons Convention. "Confidence-Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal].

Accessed 2 December 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini requires biosafety training, using a standardized, required approach for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has the Biosafety Act of 2012 (1) and a number of biosafety containment procedures in place that are organized by the Biosafety Advisory Committee. Training on biosafety is conducted at the national laboratory level and within public health units, but there is no indication of specific procedures that are standardized and regularized. The report notes that "Training on biosafety and biosecurity is not available to all laboratory staff (public health and animal health), including management and support staff." The report also states that while the National Reference Laboratory and Central Veterinary Laboratory utilize simple physical security measures such as the use of biometrics to "prevent access to biological specimens by unauthorized people," there is no indication that it mandates standardized trainings. [2] The Ministry of Health website provides standard operating procedures for handling medical waste, including guidance on the categories of biohazard, but there is no indication that this training is standardized or required. [3] The Veterinary Public Health Act (2013) includes provisions for adopting "control measures" when creating animal products for human consumption in order to contain animal diseases and prevent the spread of contagious diseases to humans, including taking precautionary measures when introducing new animals to farms and reporting incidences of disease, but there is no indication of a specific training required of personnel working in these facilities. [4] The Swaziland Health Laboratory Services also supply "[t]raining and education; oversee provision and facilitation of training courses and workshops for staff in both private and public sector laboratory, developing the knowledge and skills essential for providing quality services across medical, environmental, and public health laboratories," but there is no indication that this training is standardized or regularized. [5] According to the World Organisation for Animal Health (OIE) Performance for effective Veterinary Services (PVS) mission report, published in September 2007, the Ministry of Agriculture Department of Veterinary and Livestock Services has "implemented biosecurity measures that enable it to establish and maintain a disease free zone for selected animals and animal products, as necessary," but there is no publicly available evidence of these measures. [6] There is no additional information regarding biosafety training that utilizes a standardized, regularized approach in Swaziland through the Ministry of Health, the Ministry of Agriculture or on the VERTIC Legislation Database. [7,8,9] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [10] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] The Biosafety Act of 2012. [https://bch.cbd.int/database/record.shtml?documentid=106001]. Accessed 2 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 2 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. "Documents". [http://www.gov.sz/index.php/health-documents/73-health/health/1520-environmental]. Accessed 2 December 2020.
[4] The Veterinary Public Health Act. 1 August 2013.

[http://www.gov.sz/images/veterinary%20public%20health%20act_%202013.pdf]. Accessed 2 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 2 December 2020.
[6] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 2 December 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 2 December 2020.
[8] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 2 December 2020.
[9] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[10] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 2 December 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

Is there publicly available evidence that the country has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?
Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, or pathogens with pandemic potential or other dual use research. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has ratified the Biological Weapons Convention and Suppression of Terrorism Act (2008), but it is not clear which ministries are responsible for implementing it. [1] There is no additional information regarding whether Swaziland has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, or pathogens with pandemic potential or other dual use research through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, the Royal Eswatini Police Service or on the VERTIC Legislation Database. [2,3,4,5,6] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [7] Neither of the Ministry of Defence or the national laboratory system have an online presence, and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 2 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 2 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 2 December 2020.

[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 2 December 2020.
[5] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 2 December 2020.
[6] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[7] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 2 December 2020.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a national policy requiring oversight of dual use research, such as research on especially dangerous pathogens, toxins, or pathogens with pandemic potential. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has ratified the Biological Weapons Convention and Suppression of Terrorism Act (2008), but it is not clear which ministries are responsible for implementing it or to what extent it requires oversight over dual use research. [1] The Biosafety Act of 2012 addresses "mechanisms for ensuring the safe handling, transfer and use of products of biotechnology," but there is no indication that it governs dual use research. [2] There is no additional information regarding whether Eswatini requires such oversight through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, the Royal Eswatini Police Service or on the VERTIC Legislation Database. [3,4,5,6,7] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8] Neither of the Ministry of Defence or the national laboratory system have an online presence, and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 2 December 2020.
[2] The Biosafety Act of 2012. [https://bch.cbd.int/database/record.shtml?documentid=106001]. Accessed 2 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 2 December 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 2 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 2 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 2 December 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[8] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 2 December 2020.

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has an agency responsible for oversight over research with especially dangerous pathogens, pathogens with pandemic potential, or other dual use research. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has ratified the Biological Weapons Convention and Suppression of Terrorism Act (2008), but it is not clear which ministries are responsible for implementing it or to what extent it requires oversight over dual use research. Furthermore, it does not appear that other existing working groups which cover aspects of biosafety and biosecurity (e.g. the National Codex Committee, National Sanitary and Phytosanitary Committee (comprising Animal Health OIE; Plant Health; International Plant protection Convention (IPPC)) are responsible for addressing biosecurity concerns. [1] The Biosafety Act of 2012 empowers the Eswatini Environment Authority to be the national focal point for biosafety and establishes Biosafety Advisory Committee to provide guidance to relevant stakeholders. There is, however, no publicly available evidence of this organisation. Additionally, while it addresses "mechanisms for ensuring the safe handling, transfer and use of products of biotechnology," there is no indication that it governs dual use research. [2] Under the terms of The Environment Management Act of 2002, the Ministry of Agriculture is responsible for classifying "hazardous substances," managing the licensing to use toxic and hazardous substances, and issuing other regulations regarding hazardous waste, but there is no indication that this includes pathogens with pandemic potential. [3] There is no information regarding whether Eswatini requires such oversight through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, the Royal Eswatini Police Service or on the VERTIC Legislation Database. [4,5,6,7,8] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence that the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [9] Neither the Ministry of Defence nor the national laboratory system have an online presence, and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 1 December 2020.
[2] The Biosafety Act of 2012. [https://bch.cbd.int/database/record.shtml?documentid=106001]. Accessed 1 December 2020.
[3] Act No. 5 of 2002: The Emergency Management Act. 2002. [http://www.vertic.org/media/National%20Legislation/Swaziland/SZ_Environment_Management_Act.pdf]. Accessed 1 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.
[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[7] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 1 December 2020.
[8] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[9] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal].

Accessed 1 December 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has legislation, regulation, policy, or other guidance that requires the screening of synthesized DNA before it is sold. The Biosafety Act of 2012, in part, provides for "the safe handling, transfer and use of genetically modified organisms," but there is no indication that it governs the use of synthesized DNA. [1] There is no other information regarding a legislation, regulation, policy, or other guidance that requires the screening of synthesized DNA before it is sold in Eswatini through the Ministry of Health, Ministry of Agriculture, Swaziland Health Laboratory Services, the Royal Eswatini Police Service, the Swazi Legal Information Institute or on the VERTIC Legislation Database. [2, 3, 4, 5, 6,7] Although Eswatini is a party to the Biological Weapons Convention (BWC), there is no publicly available evidence the country has submitted Confidence Building Measures reports in accordance with decisions of BWC Review Conferences. [8] Neither the Ministry of Defence nor the national laboratory system have an online presence, and there is no existing Public Health Institute.

[1] The Biosafety Act of 2012. [https://bch.cbd.int/database/record.shtml?documentid=106001]. Accessed 1 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 1 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 1 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 1 December 2020.
[5] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 1 December 2020.
[6] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 1 December 2020.
[7] VERTIC Legislation Database. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/e/]. Accessed 30 November 2020.
[8] Biological Weapons Convention. "Confidence Building Measures." [https://bwc-ecbm.unog.ch/group/ecbm-portal]. Accessed 1 December 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 0

2019

World Health Organization

1.6.1b

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

Yes = 1 , No = 0

Current Year Score: 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: 1

There is publicly available information that the national laboratory system in Eswatini has the capacity to conduct diagnostic tests for at least 5 of the 10 World Health Organisation (WHO)-defined core tests, but the tests are not named. According to the Joint External Evaluation (JEE), conducted in April 2018, the National Reference Laboratory (otherwise known as the Swaziland Heath Laboratory Services), has the capacity to conduct 6 of the WHO-defined core tests. These core tests are malaria, measles, meningitis, food poisoning, typhoid, and cholera. The types of tests are not specified. The Central Veterinary Laboratory, for its part, has the capacity to test for 5 of the core tests: tuberculosis, highly-pathogenic avian influenza, brucellosis, salmonellosis and rabies. The JEE makes no mention, however, of any capacity to test for country-specific core diagnostic tests, nor does it specify the types of tests that are conducted for these 6 pathogens. [1] There is no other information regarding the capacity to conduct diagnostic tests for the WHO-defined core tests through the Ministry of Health or the Ministry of Agriculture. [2,3]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 2 December 2020.

[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 2 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 2 December 2020.

2.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence that Eswatini has a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. No mention of any of these three criteria is made in the Joint External Evaluation (JEE) fro Eswatini, conducted in April 2018, the websites of the Ministries of Health or Agriculture, the 2018 Development of Swaziland's National Antimicrobial Resistance Containment Strategic Plan or in the 2020 National Contingency Plan for Novel Corona Virus. [1,2,3,4,5] The national laboratory system has no online presence, and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 2 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 2 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 2 December 2020.
[4] Development of Swaziland's National Antimicrobial Resistance Containment Strategic Plan. January 2018. [http://siapsprogram.org/wp-content/uploads/2018/03/18-032-AMR-Technical-Report_Jan2018.-V.4.final_.pdf]. Accessed 2 December 2020.
[5] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 2 December 2020.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the national laboratory in Eswatini that serves as a reference facility is accredited. According to the Joint External Evaluation (JEE), conducted in April 2018, the Central Veterinary Laboratory, which serves as a reference facility for animal health, is still in the process of acquiring ISO 17025 accreditation. Media sources do not reveal

any subsequent developments. [1] The National Reference Laboratory (otherwise known as the Swaziland Health Laboratory Services), which serves as a reference facility for human health, has applied for accreditation from the Southern African Development Community Accreditation Services (SADCAS). [1] Again, there is no evidence that these applications for accreditation have been finalized. There is no other information regarding accreditation of a national laboratory that serves as a reference facility through the Ministry of Health, Ministry of Agriculture, or the SADC Regional Laboratory Association. [2, 3, 4]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 3 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 3 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 3 December 2020.
[4] SADC Regional Laboratory Association. 2018. National Laboratory of eSwatini (NLAE). [http://sadcrla.org/?page_id=256]. Accessed 3 December 2020.

2.1.2b

Is there a national laboratory that serves as a reference facility which is subject to external quality assurance review?
Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that there is a national laboratory that serves as a reference facility subject to external quality assurance review. According to the Joint External Evaluation (JEE), conducted in April 2018, the National Reference Laboratory (also known as the Swaziland Health Laboratory Services, which serves as a reference facility for human health), Raleigh Fitkin Memorial Hospital Laboratory, Central Veterinary Laboratory (which serves as a reference facility for animal health), and two private laboratories, Lancet and Ampath, conduct external quality assurance programmes. However, the JEE also notes that some core tests in these laboratories are not included in external quality assessment programmes. [1] There is no other information regarding national laboratories that serve as reference facilities being subject to external quality assurance through the Ministry of Health or the Ministry of Agriculture. [2, 3] The national laboratory system has no online presence, and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 3 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 3 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 3 December 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Eswatini has a nationwide specimen transport system in place. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has the National Sample Transport System, "a good sample/specimen transport system with dedicated vehicles managed by staff trained in specimen referral and laboratory testing systems for priority diseases." [1, 2] The report also states that although the national laboratory has an "excellent" courier system in place for specimen transport, transportation of specimens outside the country for advanced diagnostic testing has been dependent on WHO financial support, which will be ending in the near future. Additionally, there is no dedicated transport system in place for veterinary specimens like that used for public health facilities. [1] The Stakeholder Engagement Plan (SEP), sponsored by the World Bank Group, which is running from April 2020 till April 2022, states that, among other things, the "project will provide technical assistance and procure goods and equipment to strengthening of health facilities and the National Reference Laboratory (NRL) (and other public health laboratories as deemed necessary) in specimen collection, packaging, storage, shipment". [3,4] There is no additional evidence regarding a nationwide specimen transport system through the Ministry of Health, Ministry of Agriculture, or the Swaziland Health Laboratory Services. [5,6,7]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 4 December 2020.
[2] Swaziland Health Laboratory Service. 4 January 2016. "National Sample Transportation System (NSTS) Policy and Procedure Manual". [http://www.stoptb.org/WG/gli/assets/documents/srt/Swaziland%20-%20National%20Sample%20Transportation%20System%20(NSTS)%20Policy%20and%20Procedure%20Manual_2016.pdf]. Accessed 4 December 2020.
[3] Stakeholder Engagement Plan (SEP) [http://www.gov.sz/images/CORONA/eSwatini-COVID19---Preliminary-SEP-April-13-.pdf]. Accessed 4 December 2020.
[4] World Bank Group - International Bank for Reconstruction and Development. Eswatini COVID-19 Emergency Response Project. [https://projects.worldbank.org/en/projects-operations/project-detail/P173883]. Accessed 4 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 4 December 2020.
[6] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 4 December 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 4 December 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no publicly available evidence that Eswatini 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 information through the Ministries of Health or Agriculture, the Joint External Evaluation report (JEE) for Eswatini, conducted in April 2018, or the 2020 National Contingency Plan for Novel Corona Virus (Eswatini). [1,2,3,4] The national laboratory system has no online presence, and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 3 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 3 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 3 December 2020.
[4] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf] Accessed 4 December 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

Is there evidence that the country is conducting ongoing event-based surveillance and analysis for infectious disease?
Yes, there is evidence of ongoing event-based surveillance and evidence that the data is being analyzed on a daily basis = 2, Yes, there is evidence of ongoing event-based surveillance, but no evidence that the data are being analyzed on a daily basis = 1, No = 0

Current Year Score: 1

There is publicly available evidence that Eswatini conducts event-based surveillance and analysis for infectious disease, but it is unclear whether this data is being analysed on a daily basis. According to the Joint External Evaluation (JEE), conducted in April 2018, indicator and event based surveillance systems are operational for both animal health and public health sectors at all levels in Eswatini, with the adoption of the Integrated Diseases Surveillance and Response (IDSR) in 2012. The event-based surveillance system relies on a morbidity register, patient care files, department daily reports, a client management information system, a laboratory information system, health workers and members of the public to make use of immediate disease notification system. Although there are daily department reports, it is unclear whether this surveillance data is being analysed on a daily basis. [1] There is no other evidence of an event-based surveillance system in Eswatini through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services or in the 2020 National Contingency Plan for Novel Corona Virus. [2,3,4,5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 4 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-

health]. Accessed 4 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 4 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 4 December 2020.
[5] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf] Accessed 4 December 2020.

2.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has reported a potential public health emergency of international concern (PHEIC) to the World Health Organisation (WHO) within the past two years. Although Eswatini declared a State of Emergency in response to the coronavirus on 17 March 2020, the World Health Organization (WHO) had already declared COVID-19 as a PHEIC by then. [1,2] The state of emergency was initially instated for two months, then subsequently extended to 19 June 2020. [3] The Joint External Evaluation (JEE), conducted in April 2018, does note that Eswatini contributes "regular reporting on animal diseases to regional, continental and international bodies" according to its list of notifiable disease events. [4] According to the WHO Disease Outbreak News page, Eswatini has not reported a potential outbreak within the past two years. [5] There is no additional information regarding a potential PHEIC reported by Eswatini within the past two years through the Ministries of Health or Agriculture, the Swaziland Health Laboratory Services, or the WHO country page for the Kingdom of Eswatini. [6,7,8.9]

[1] East, Central and Southern African Health Community (ECSA-HC). 17 March 2020. 'Government of the Kingdom of Eswatini - Declaration of National Emergency in response to coronavirus'. [https://ecsahc.org/2020/03/17/declaration-of-national-emergency-in-response-to-coronavirus-eswatini/]. Accessed 5 December 2020.
[2] BBC World News. 31 January 2020. [https://www.bbc.com/news/world-51318246]. Accessed 12 December 2020.
[3] Gardaworld. 28 May 2020. [https://www.garda.com/crisis24/news-alerts/346051/eswatini-authorities-extend-state-of-emergency-through-to-june-19-update-5]. Accessed 5 December 2020.
[4] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[5] World Health Organisation (WHO). Disease Outbreak News by country. "Swaziland". [https://www.who.int/csr/don/archive/country/swz/en]. Accessed 12 December 2020.
[6] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 12 December 2020.
[7] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 12 December 2020.
[8] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 12 December 2020.
[9] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 12 December

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 insufficient evidence that Eswatini currently operates an electronic reporting surveillance system at both the national and sub-national level. According to the Joint External Evaluation (JEE), conducted in April 2018, indicator and event-based surveillance systems are operational for both animal health and public health sectors at all levels in Eswatini. Indicator-based surveillance through the CMIS gathers information from regional officers and aggregates that data to submit to the national office. [1] The Swaziland Livestock Information and Traceability System (SLITS), which gathers animal health epidemiological data from individual owners, sub-regional offices, four regional offices, and the national level epidemiology unit, also integrates data coming from meat inspections, laboratory services, quarantine stations and points of entry. [1, 2] The Ministry of Agriculture website, however, indicates that the computerization of the SLITS system is still underway and not yet completed. [2] The Ministry of Health Emergency Preparedness and Response (EPR) Department "coordinates and delivers pre-hospital medicine, epidemic preparedness and response and disaster risk management for health to victims of sudden and serious illness or injury," including pandemic events, but it does not appear to have an electronic reporting system in place. [3] There is no other information regarding an electronic reporting surveillance system through the Swaziland Health Laboratory Services. [4]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[2] Ministry of Agriculture. Veterinary & Livestock [http://gov.sz.dedi337.nur4.host-h.net/index.php/ministries-departments/ministry-of-agriculture/veterinary-a-livestock/80-agriculture/agriculture/865-slits]. Accessed 5 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 5 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there is an electronic event-based surveillance system in Swaziland that collects ongoing, real-time laboratory data. According to the Joint External Evaluation (JEE), conducted in April 2018, indicator and event-based surveillance systems are operational for both animal health and public health sectors at all levels in Swaziland. Indicator-based surveillance gathers information from regional officers and aggregates that data to submit to the national office. The report does note, however, that poor internet connectivity often impacts the real-time performance of the CMIS. [1] The Swaziland Livestock Information and Traceability System (SLITS), which gathers animal health epidemiological data

from individual owners, sub-regional offices, four regional offices, and the national level epidemiology unit, also integrates data coming from meat inspections, laboratory services, quarantine stations and points of entry, but this process does not appear to be computerized or conducted in real time. [1, 2] There Ministry of Health Emergency Preparedness and Response (EPR) Department "coordinates and delivers pre-hospital medicine, epidemic preparedness and response and disaster risk management for health to victims of sudden and serious illness or injury," including pandemic events, but it does not appear to have an electronic reporting system in place. [3] There is no other information regarding an electronic reporting surveillance system in the 2020 National Contingency Plan for Novel Corona Virus or the Swaziland Health Laboratory Services. [4,5] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 4 December 2020.
[2] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 4 December 2020.
[3] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf] Accessed 4 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 4 December 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

There is publicly available evidence that electronic health records are in use in Eswatini, although not commonly. A World Bank project appraisal, dated 29 May 2020, called 'Health system strengthening for human capital development in Eswatini' states "Eswatini's electronic medical record system, known as the Client Management Information System (CMIS), is available in less than half of facilities (48 percent) and does not cover, or inadequately covers, all health conditions." [1] According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini utilizes the CMIS for public health records, which aims to encourage better data accuracy and interoperability between public and private clinics. [2] According to the CMIS website, it is an "integrated patient management system for managing and reporting all diseases" that keeps a "a health sector unique patient Identifier using Swaziland's national ID number with the aim of improving quality of care particularly for chronic conditions such as HIV and AIDS, Diabetes, Hypertension, etc." [3] However, there is no publicly available indication that a significant percentage of the population of Eswatini uses this system or that enrolment is mandatory. A Researchgate study, dated January 2019, found that "the level of e-records readiness in the ministries is at an infant stage" and there "was evidence of an irresponsive, weak, and disjointed legislative and policy framework on e-records; and a lack of contemporary records management skills." [4] There is no additional evidence regarding electronic health records through the Ministry of

Health or the Swaziland Health Laboratory Services. [5,6]

[1] World Bank - International Bank for Reconstruction and Development (IBRD). 29 May 2020. 'Health system strengthening for human capital development in Eswatini'. [http://documents1.worldbank.org/curated/ar/667311591296915504/pdf/Eswatini-Health-System-Strengthening-for-Human-Capital-Development-in-Eswatini-Project.pdf]. Accessed 5 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[3] Client Management Information System (CMIS). [http://www.hmisswaziland.com/page/cmis.php]. Accessed 5 December 2020.
[4] Researchgate. Sabedze,Vusi. January 2019. 'E-Records Readiness in the Context of E-Government Strategy in Eswatini'. [https://www.researchgate.net/publication/338302567_E-Records_Readiness_in_the_Context_of_E-Government_Strategy_in_Eswatini]. Accessed 5 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.

2.4.1b

Does the national public health system have access to electronic health records of individuals in their country?
Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that the national public health system in Eswatini has access to electronic health records of individuals in their country. According to the Joint External Evaluation (JEE), conducted in April 2018, the public health system in Eswatini utilizes the Client Management Information System (CMIS) for public health records, which aims to encourage better data accuracy and interoperability between public and private clinics. [1] According to the CMIS website, it is an "integrated patient management system for managing and reporting all diseases" that keeps "a health sector unique patient Identifier using Swaziland's national ID number with the aim of improving quality of care particularly for chronic conditions such as HIV and AIDS, Diabetes, Hypertension, etc." [2] The CMIS is part of the Swaziland Health Management Information System (HMIS) unit within the Ministry of Health, and it is aimed at "minimizing gaps and maximizing resources utilization to establish a health information system providing relevant, timely and quality information to the health sector and other relevant stakeholders, in the pursuit of a healthy nation." [3] There is no additional evidence regarding electronic health records through the Ministry of Health or the Swaziland Health Laboratory Services. [4, 5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[2] Client Management Information System (CMIS). [http://www.hmisswaziland.com/page/cmis.php]. Accessed 5 December 2020.
[3] Health Management Information System (HMIS). [http://www.hmisswaziland.com/page/about.php]. Accessed 5 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.

[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that there are data standards in Eswatini to ensure that data is comparable. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini utilizes the Client Management Information System (CMIS) for public health records, which aims to encourage better data accuracy and interoperability between public and private clinics. [1] According to the CMIS website, it is an "integrated patient management system for managing and reporting all diseases" that keeps a "a health sector unique patient Identifier using Swaziland's national ID number with the aim of improving quality of care particularly for chronic conditions such as HIV and AIDS, Diabetes, Hypertension, etc." [2] The CMIS is part of the Eswatini Health Management Information System (HMIS) unit within the Ministry of Health, and it is aimed at "minimizing gaps and maximizing resources utilization to establish a health information system providing relevant, timely and quality information to the health sector and other relevant stakeholders, in the pursuit of a healthy nation." [3] However, it is unclear to what extent there is regular access to these health records across the entire national public health system or application of data standards to the records. Although the Swaziland Health Laboratory Services aim to "support all laboratories and testing sites to achieve certification and licensure to meet both National and International Standards," there is no evidence that it imposes data standards on health records. [4] There is no information regarding data standards through the Ministry of Health. [5] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[2] Client Management Information System (CMIS). [http://www.hmisswaziland.com/page/cmis.php]. Accessed 5 December 2020.
[3] Health Management Information System (HMIS). [http://www.hmisswaziland.com/page/about.php]. Accessed 5 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has an established mechanism at relevant ministries responsible for animal, human, and wildlife surveillance to share data. According to the Joint External Evaluation (JEE), conducted in April 2018, only informal mechanisms exist for the Ministry of Health, Ministry of Agriculture, and other relevant governmental bodies for disease surveillance and outbreak response. The report also notes that collaboration needs to be strengthened between all stakeholders involved in zoonotic diseases surveillance and control in Eswatini, in particular between the Ministry of Health and Ministry of Agriculture, but also with civil society organizations, animal welfare organizations, and environmental authorities. [1] There is no other evidence of an established mechanism in place to share surveillance data through the Ministry of Health, Ministry of Agriculture, the Swaziland Health Laboratory Services, the Ministry of Tourism and Environmental Affairs, the Ministry of Natural Resources and Energy or the 2020 National Contingency Plan for Novel Corona Virus. [2,3,4,5,6,7] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 5 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.
[5] The Ministry of Tourism and Environmental Affairs of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-tourims-environments-a-communications]. Accessed 5 December 2020.
[6] The Ministry of Natural Resources and Energy of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-natural-resources]. Accessed 5 December 2020.
[7] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 5 December 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Eswatini makes de-identified health surveillance data on disease outbreaks publicly available via reports on government websites. According to the Joint External Evaluation (JEE), conducted in April 2018, the Ministry of Health reports daily cases of infectious disease through the Immediate Disease Notification System (IDNS) while monthly reporting is through the Health Management Information System (HMIS), resulting in weekly and monthly bulletins. "For case identification, a standard immediate disease notification system (IDNS) form has been developed; health facilities/practitioners are required to fill this in and thereafter call the 977 hotline to report to the IDNS database and consult on further steps to be taken. The information fed into the I[D]NS database is then communicated to the relevant task forces

and units, such as the Regional Epidemic Task Force (RETF), Emergency Preparedness and Response Unit (EPRU), the Health Management Information System (HMIS) and the Epidemiology and Disease Control Unit (EDCU)." [1] The Swaziland Livestock Information and Traceability System (SLITS) conducts animal health surveillance, tracking, and identification, but it does not appear that this information is de-identified or made public. [2] There is no other evidence of de-identified health surveillance data through the Ministry of Health, Ministry of Agriculture, or the Swaziland Health Laboratory Services. [3,4,5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[2] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 5 December 2020.
[3] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.
[4] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 5 December 2020.
[5] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.

2.4.3b

Does the country make de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites (such as the Ministry of Health, or similar)?
Yes = 1 , No = 0

Current Year Score: 1

Eswatini does make de-identified health surveillance data on COVID-19 publicly available via daily reports on the government website that includes all ministries. A COVID19 Daily Situation Report is published under a COVID-19 Updates heading. [1]

[1] The Government of the Kingdom of Eswatini. COVID19 Daily Situation Report. [http://www.gov.sz/index.php/covid-19-corona-virus/situational-analysis]. Accessed 5 December 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: 0

There is no publicly available information that Eswatini has laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals. A page in the website of Dataguidance (a regulatory research group), dated August 2020 and titled 'Eswatini - Data Protection Overview', states that "Generally speaking, and in line with most modern jurisdictions, Swaziland recognises and protects the right of a data subject to their personal information." but "there is no specific legislation that deals with the health and pharma sector in particular." Currently there is a piece of legislation, the

Data Protection Bill No. 21/2017, "which seeks to collate all existing data protection legislation, but it has not been promulgated into law as yet." [1] According to the Joint External Evaluation (JEE), conducted in April 2018, reports are produced by the Immediate Disease Notification System (IDNS) and the Health Management Information System (HMIS) but there is no indication that these reports or the publicly identifiable personal health information within them are subject to any confidentiality restrictions. [2] The Swaziland Livestock Information and Traceability System (SLITS) conducts animal health surveillance, tracking, and identification, but it does not appear that this information is subject to confidentiality restrictions for owners. [3] There is no information regarding a law, regulation, or guideline that safeguards the confidentiality of identifiable health information through the Ministries of Health or Agriculture, the Swaziland Health Laboratory Services, or the Swazi Legal Information Institute. [4,5,6,7]

[1] Dataguidance. August 2020. 'Eswatini - Data Protection Overview'. [https://www.dataguidance.com/notes/eswatini-data-protection-overview#:~:text=21%2F2017%20('the%20Data,subject%20to%20their%20personal%20information]. Accessed 5 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[3] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 5 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.
[5] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 5 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.
[7] The Swazi Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 5 December 2020.

2.4.4b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available information that Eswatini has laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals that include protections from cyberattacks. A page in the website of Dataguidance (a regulatory research group), dated August 2020 and titled 'Eswatini - Data Protection Overview', states that "Generally speaking, and in line with most modern jurisdictions, Swaziland recognises and protects the right of a data subject to their personal information." but "there is no specific legislation that deals with the health and pharma sector in particular" and there is no mention of protections from cyberattack. Currently there is a piece of legislation, the Data Protection Bill No. 21/2017, "which seeks to collate all existing data protection legislation, but it has not been promulgated into law as yet." [1] According to the Joint External Evaluation (JEE), conducted in April 2018, reports are produced by the Immediate Disease Notification System (IDNS) and the Health Management Information System (HMIS) but there is no indication that the publicly identifiable personal health information found in these reports includes protections from cyberattack. [2] There is no information regarding a law, regulation, or guideline that that protects identifiable health information from cyberattack

through the Swaziland Livestock Information and Traceability System (SLITS), the Ministries of Health or Agriculture, the Swaziland Health Laboratory Services, or the Swazi Legal Information Institute. [3,4,5,6,7]

[1] Dataguidance. August 2020. 'Eswatini - Data Protection Overview'. [https://www.dataguidance.com/notes/eswatini-data-protection-overview#:~:text=21%2F2017%20('the%20Data,subject%20to%20their%20personal%20information]. Accessed 5 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 5 December 2020.
[3] The Government of the Kingdom of Eswatini. The Swaziland Livestock Information and Traceability System (SLITS). [http://www.gov.sz/index.php?option=com_content&view=article&catid=80%253Aagriculture&id=865%253Aslits&Itemid=594]. Accessed 5 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 5 December 2020.
[5] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 5 December 2020.
[6] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 5 December 2020.
[7] The Swazi Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 5 December 2020.

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 0

There is no publicly available evidence that the government of Eswatini has made a commitment via public statements, legislation, or other agreements to share surveillance data on one, or more, diseases during a public health emergency with other countries in the region. Eswatini participates in the South African Development Community (SADC), an international body that encourages economic opportunity in Southern Africa, including the sharing of health research and surveillance information. [1] According to the SADC Protocol on Health (1999), member states are obliged to "(i) co-operate and assist each other in the co-ordination and management of disaster and emergency situations; (ii) collaborate and facilitate regional efforts in developing awareness, risk reduction, preparedness and management plans for natural and man-made disasters; and (iii) develop mechanisms for co-operation and assistance with emergency services." However, there is no indication that this general commitment has been transferred into a concrete plan for active cooperation during an emergency. [2] According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, Eswatini also participates in the Global Outbreak Alert and Response Network, which is intended to "pool human and technical resources for rapid identification, confirmation and response to outbreaks of international importance," and the African Union - Interafrican Bureau for Animal Resources (AU-IBAR), but it is unclear if this effort includes public health emergency response. [3,4,5] There is no other evidence of the government of Eswatini making public commitments to share surveillance data during a public health emergency through the Ministry of Health, Ministry of Agriculture, or the Swaziland Health Laboratory Services. [6,7,8] There

is no existing Public Health Institute.

[1] The Ministry of Foreign Affairs and International Co-operation of the Kingdom of Eswatini. "South African Development Community". [http://www.gov.sz/index.php/department/sadc-national-coordination-unit]. Accessed 6 December 2020.
[2] South African Development Community. "Disaster Risk Management". [https://www.sadc.int/themes/disaster-risk-management/]. Accessed 6 December 2020.
[3] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 6 December 2020.
[4] World Health Organisation (WHO). "Global Outbreak Alert and Response Network (GOARN)".[https://www.who.int/ihr/alert_and_response/outbreak-network/en/]. Accessed 6 December 2020.
[5] African Union - Interafrican Bureau for Animal Resources (AU-IBAR). [http://www.au-ibar.org/]. Accessed 6 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 6 December 2020.
[7] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 6 December 2020.
[8] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 6 December 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

Is there a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency?
Yes, there is evidence that the national government supports sub-national systems to prepare for future public health emergencies = 2, Yes, there is evidence that the national government supports sub-national systems, but only in response to active public health emergencies = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of an active or future public health emergency. The 2020 National Contingency Plan for Novel Corona Virus (Eswatini) states that "surveillance objectives focus on rapid detection of imported cases, comprehensive and rapid contact tracing, and case identification. In a scenario in which sustained community transmission has been detected, objectives expand to include monitoring the geographical spread of the virus, transmission intensity, disease trends, characterization of virologic features, and the assessment of impacts on healthcare services." Furthermore, under an 'Implementation framework' header, guidelines for enhancing contact tracing include "Adapt/domesticate and implement existing WHO guidelines and SOPs for contact tracing". This plan is, however, both disease and event specific. [1] There is no further information through the Ministry of Health. [2] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf].

Accessed 6 December 2020.
[2] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 6 December 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 insufficient publicly available evidence that Eswatini provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention. A Ministry of Labour and Social Security statement, dated 8 April 2020, contains many mitigating measures regarding job and salary retention which employers "are to consider", but this is not compulsory, nor is there any commitment by the Eswatini government. [1] An Independent Online (IOL) article, dated 24 March 2020, quotes King Msawti III on some tax and other financial relief measures to be put in place, but these cannot qualify as comprehensive 'wraparound' services. [2] A July 2020 International Monetary Fund (IMF) Request for Purchase Under the Rapid Financing Instrument (RFI), commits US$110.4 million to address the COVID-19 Pandemic in Eswatini, but there is no specific mention of this being used for wraparound services. [3] Nothing further on wraparound services could be found on the Ministry of Health website or in the 2020 National Contingency Plan for Novel Corona Virus (Eswatini). [4,5] The national laboratory system has no online presence, and there is no existing Public Health Institute.

[1] Ministry of Labour and Social Security. 8 April 2020. 'Press statement on employment contingency measures in response to the COVID-19 National Emergency'. [http://www.gov.sz/images/CORONA/PRESS-STATEMENT-MIN-OF-LABOUR-APRIL-20220.pdf]. Accessed 6 December 2020.
[2] Independent Online (IOL). 24 March 2020. 'Coronavirus: Eswatini to reduce fuel price, cut interest rates after declaring national emergency'. [https://www.iol.co.za/news/africa/coronavirus-eswatini-to-reduce-fuel-price-cut-interest-rates-after-declaring-national-emergency-45459002]. Accessed 6 December 2020.
[3] International Monetary Fund (IMF) IMF - Country Report No. 20/229. July 2020. 'Request for Purchase Under the Rapid Financing Instrument (RFI) - Press release; Staff report; and Statement by the Executive Director for the Kingdom of Eswatini.' [https://www.imf.org/~/media/Files/Publications/CR/2020/English/1SWZEA2020002.ashx]. Accessed 6 December 2020.
[4] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 6 December 2020.
[5] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 6 December 2020.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar). There is no information on contact tracing on the government of the Kingdom of Eswatini website, COVID-19 Daily Situation Report page, or in the 2020 National Contingency Plan for Novel Corona Virus. [1,2] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] The government of the Kingdom of Eswatini. COVID-19 Daily Situation Report. [http://www.gov.sz/index.php/covid-19-corona-virus/situational-analysis]. Accessed 6 December 2020.
[2] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 6 December 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

There is no publicly available evidence of a joint plan or cooperative agreement between the Eswatini 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 or future public health emergency. The Joint External Evaluation (JEE), conducted in April 2018, states that public health coordinates with the Ministry of Agriculture, Ministry of Home Affairs (border control) and the Royal Eswatini Police Service as well as the customs officials at points of entry, but there is no MoU in place between public health and security authorities. [1] The 2020 National Contingency Plan for Novel Corona Virus includes in its guidance "Enhance health surveillance measures at POE by referring febrile inbound travellers with or without other symptoms and had travel history to the affected area(s) to public hospitals for isolation and further management; Closely follow the WHO's recommendations on port health measures." However this does not constitute a joint plan. [2] Nothing further could be found on the web pages of the Ministry of Health or the Ministry of Home Affairs. [3,4] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 2020.
[3] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[4] Ministry of Home Affairs. [http://www.gov.sz/index.php/ministries-departments/ministry-of-home-affairs]. Accessed 7 December 2020.

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?

- Applied epidemiology training program (such as FETP) is available in country

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

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

Current Year Score: 0

The Joint External Evaluation (JEE), conducted in April 2018, states that public health coordinates with the Ministry of Agriculture, Ministry of Home Affairs (border control) and the Royal Eswatini Police Service as well as the customs officials at points of entry, but there is no MoU in place between public health and security authorities. [1] The 2020 National Contingency Plan for Novel Corona Virus includes in its guidance "Enhance health surveillance measures at POE by referring febrile inbound travellers with or without other symptoms and had travel history to the affected area(s) to public hospitals for isolation and further management; Closely follow the WHO's recommendations on port health measures." However this does not constitute a joint plan. [2] Nothing further could be found on the web pages of the Ministry of Health or the Ministry of Home Affairs. [3,4] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] The Ministry of Agriculture of the Kingdom of Eswatini. "Veterinary Field Services". [http://www.gov.sz/index.php/component/content/article/80-agriculture/agriculture/693-veterinary-field-services?Itemid=799]. Accessed 7 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[4] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 7 December 2020.
[5] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [https://www.tephinet.org/training-programs]. Accessed 7 December 2020.
[6] African Field Epidemiology Network (AFENET). [http://afenet.net/]. Accessed 7 December 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 publicly available evidence that Eswatini has an applied field training programme (FETP) available in-country that is inclusive of animal health professionals. According to the Joint External Evaluation (JEE), conducted in April 2018, there is no Field Epidemiology Training Program (FETP) or other applied epidemiology training programmes in Eswatini. [1] The Ministry of Health will occasionally support individuals to attend programmes in other countries, but there does not appear to be dedicated resources for FETP or a focus on animal health. [1] While the Ministry of Agriculture Veterinary Field Services Department does conduct "in-service training for veterinary and livestock staff," it is unclear whether this includes applied field training. [2] There is no information regarding a FETP in Swaziland through the Ministry of Health, Ministry of Agriculture, or the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [3, 4, 5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] The Ministry of Agriculture. "Veterinary Field Services". [http://www.gov.sz/index.php/component/content/article/80-agriculture/agriculture/693-veterinary-field-services?Itemid=799]. Accessed 7 December 2020.
[3] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[4] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 7 December 2020.
[5] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [https://www.tephinet.org/training-programs]. Accessed 7 December 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: 1

There is evidence that Eswatini has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, but there is no evidence that the plan is publicly available. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has a National Disaster Management Agency (NDMA) established by the Disaster Management Act (2006) and an Emergency Preparedness and Response Unit within the Ministry of Health, which is guided by the "Emergency Preparedness and Response Strategy 2017-2020." This strategy, however, is not publicly available. [1, 2, 3] The Emergency Preparedness and Response (EPR) system, in line with the National Health Sector Strategic Plan (NHSSP), "aims at enhancing the MOH Emergency, Epidemic and Disaster Preparedness and Response capacity at all levels in order to prevent and respond effectively and in a timely manner, to both natural and man-made health emergencies including outbreaks." [2] In addition, the National Health Policy, the National Health Sector Strategic Plan and the National Multi-Hazard Contingency Plan are also in place. [4,5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] The Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 7 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[4] National Health Policy. 2006?. [https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_174726.pdf]. 7 December 2020.
[5] National Health Sector Strategic Plan 2014-2018. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/swaziland/swaziland_nhssp_ii_draft_zero_29_aug_2014.pdf]. 7 December 2020.
[6] National Multi Hazard Contingency Plan 2012 to 2013. May 2012. [https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Multi%20Hazard%20Contingency%20Plan%20MHCP%20Consolidated%20.2012_Inserted%20Signatures.pdf]. 7 December 2020.

3.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence that the national emergency preparedness plan for Swaziland has been updated within the past 3 years. According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has a National Disaster Management Agency (NDMA) established by the Disaster Management Act (2006) and an Emergency Preparedness and Response Unit within the Ministry of Health, which is guided by the "Emergency Preparedness and Response Strategy 2017-2020." [1, 2, 3] However, this plan is not publicly available and there is no evidence of it having been updated. There is no additional evidence of a national public health emergency response plan that has been updated within the past 3 years through the Ministry of Health, Swaziland Health Laboratory Services, or the Royal Eswatini Police Service. [4,5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 7 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 7 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 7 December 2020.

3.1.1c

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

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

Current Year Score: 0

There is no publicly available evidence that the national emergency preparedness plan in Eswatini includes considerations for paediatric and other vulnerable populations. According to the Joint External Evaluation (JEE), conducted in April 2018, Swaziland has a National Disaster Management Agency (NDMA) established by the Disaster Management Act (2006) and an Emergency Preparedness and Response Unit within the Ministry of Health, which is guided by the "Emergency Preparedness and Response Strategy 2017-2020." [1, 2, 3] The Emergency Preparedness and Response Unit plan is no longer publicly available, but 2019 research stated that it did not include special considerations for paediatric or other vulnerable population care. There is no additional evidence of special considerations in emergency preparedness for paediatric or other vulnerable populations through the Ministry of Health, Swaziland Health Laboratory Services, or the Royal Eswatini Police Service. [4,5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 7 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[5] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 7 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 7 December 2020.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Swaziland has a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. The 2020 National Contingency Plan for Novel Corona Virus only states that private sector hospitals and medics need to be kept updated on all epidemic developments, without any details of specific mechanisms. [1] According to the Joint External Evaluation (JEE), conducted in April 2018, there are "no mechanisms in place to facilitate collaboration (i.e. secondment of staff) between the private and public sector for surveillance and response to health emergencies" in Swaziland. [2] The Emergency Preparedness and Response Unit and National Disaster Management Agency, which coordinate emergency response in Swaziland, do not indicate that there is any mechanism for cooperating with the private sector. [3, 4] There is no additional evidence of special considerations in emergency preparedness for paediatric or other vulnerable populations through the Ministry of Health, Swaziland Health Laboratory Services, or the Royal Eswatini Police Service. [5, 6, 7]

[1] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 7 December 2020.
[4] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 7 December 2020.
[7] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 7 December 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 0

There is no publicly available evidence that Eswatini has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for one or more diseases. There is general advice on social distancing and hand hygiene in the Ministry of Health website, but no specific plan or criteria for when NPIs should be implemented. [1] There is no NPI specific information through the 2018 Joint External Evaluation (JEE), the Disaster Management Agency or in the 2020 Contingency Plan for Novel Corona Virus. [2,3,4]

[1] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[3] Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[4] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 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 Eswatini has activated its national emergency response plan for an infectious disease outbreak in the past year, and none that it has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. The Prime Minister declared a State of Emergency on 17 March 2020 in response to the global coronavirus pandemic. Included in his declaration was that "Government is tasked to work in collaboration with Regional Administrators, Chiefs, traditional authorities and all relevant sectors to upscale the Preparedness and Response plan in communities." The WHO National Contingency Plan for Novel Corona Virus was made operational. However, there is

no evidence that this is a national plan for Eswatini. [1,2] There is no publicly available evidence of a biological threat-focused exercise within the last year, however. Eswatini is not on the country list of the WHO Simulation exercise activities. [3] No further information could be found on the Ministry of Health or Disaster Management Agency web pages. [4,5]

[1] The Government of the Kingdom of Eswatini, 17 March 2020. 'Declaration of National Emergency in response to coronavirus.' [http://www.gov.sz/index.php/latest-news/204-latest-news/2405-latest-press-statement]. Accessed 7 December.
[2] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 2020.
[3] World Health Organisation (WHO). Simulation exercise activities. [https://extranet.who.int/sph/simulation-exercise]. Accessed 12 December 2020.
[4] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[5] Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 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 publicly available evidence that Eswatini has conducted an exercise to identify a list of gaps and best practices through either an infectious disease response or a biological threat-focused exercise) and developed a plan to improve response capabilities. The Prime Minister declared a State of Emergency on 17 March 2020 in response to the global coronavirus pandemic. [1] A National Contingency Plan for Novel Corona Virus was developed, but since the pandemic is ongoing no plan to improve response capabilities has yet been made. [2] Eswatini is not on the country list of the World Health Organisation (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). [3] There is no additional information regarding such an exercise through either the Ministry of Health or the National Disaster Management Agency. [4,5]

[1] The Government of the Kingdom of Eswatini, 17 March 2020. 'Declaration of National Emergency in response to coronavirus.' [http://www.gov.sz/index.php/latest-news/204-latest-news/2405-latest-press-statement]. Accessed 7 December 2020.
[2] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 2020.
[3] World Health Organisation (WHO). "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH): After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed 7 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-

departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has, in the past year, undergone a national-level biological threat-focused exercise that has included private sector representatives. Eswatini is not on the country list of the World Health Organisation (WHO) Strategic Partnership for International Health Regulations (2005) and Health Security (SPH). [1] There is no additional information regarding such an exercise, or the inclusion of the private sector, through either the Ministry of Health or the National Disaster Management Agency. [2,3]

[1] World Health Organisation (WHO). "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH): Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise]. Accessed 7 December.
[2] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Eswatini does have an emergency operations centre (EOC) in place. According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, the EOC within the Ministry of Health (otherwise known as the Emergency Preparedness and Response Unit) is responsible for incident support during an emergency, the provision of essential services and continuity of emergency services during public health disasters. The Emergency Preparedness and Response Unit is linked to a national call centre with trained staff available at all times to guide response and a rapid response team that can be deployed with available ambulances and medical personnel. [1] After the declaration of the State of Emergency on 17th March 2020, the Contingency Plan for Novel Corona Virus was initiated and the EOC activated. [2] The National Disaster Management Agency (NDMA) was also established in 2015 to guide emergency response operations and collaboration of all nine sectors in the country, including health. [1,3] There is no additional information regarding an EOC through the Ministry of Health. [4]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.

[2] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the emergency operations centre (EOC) for Eswatini is required to conduct a drill at least once a year or that it conducts a drill once a year. Although the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, states that the emergency services (for multi-hazard public health emergency preparedness and response) undergo simulations annually, the National Disaster Management Agency (NDMA) website does not indicate that drills are required once a year. [1,2] There is no additional information on the EOC being required to conduct a drill at least once a year through the Ministry of Health. [3]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[2] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Eswatini Emergency Operations Center (EOC) can conduct, or has conducted in the past year, a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency. There is no information regarding the response time of the EOC to a public health emergency in the web sites of the Emergency Preparedness and Response (EPR) Department, the Ministry of Health, the National Disaster Management Agency, in the 2018 Joint External Evaluation (JEE) for Eswatini conducted in April 2018, or in the 2020 Contingency Plan for Novel Corona Virus. [1,2,3,4,5]

[1] The Ministry of Health of the Kingdom of Eswatini. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 7 December 2020.

[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[4] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.
[5] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 7 December 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?
- Is there public evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack)?
- Are there publicly available standard operating procedures, guidelines, memorandums of understanding (MOUs), or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e., bioterrorism attack)?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no publicly available evidence that public health and national security authorities in Eswatini have carried out an exercise to respond to a potential deliberate biological event or that there are standard operating procedures, guidelines, memoranda of understanding, or other agreements between the public health and security authorities to respond to a potential biological event. According to the Joint External Evaluation (JEE), conducted in April 2018, "[t]here is a need for formal multisectoral coordination structures and mechanisms," particularly in the areas of "preparedness, emergency response operations; linking public health and security authorities and risk communication." Although the Public Health Act (1969) does provide some legal basis to engage security authorities in public health issues, there is no formal mechanism for engagement between them. However, despite this lack of a formal agreement, "annual simulation exercises and joint trainings are taking place, for example by simulating various infectious disease outbreaks (e.g. Ebola virus disease) and the role of relevant actors in the response to these public health events." [1] The Emergency Preparedness and Response system can respond to both "natural and man-made health emergencies including outbreaks," but there is no evidence that it has carried out an exercise with national security authorities or has guidelines in place for bioterrorism response. [2] Likewise, there is no indication that the National Disaster Management Agency has carried out an exercise with national security authorities in response to a potential biological event. [3] There is no additional evidence of an exercise between public health and national security authorities or standard operating procedures for responding to biological events through the Ministry of Health or the Royal Eswatini Police Service. [4,5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 7 December 2020.

[2] The Ministry of Health of the Kingdom of Eswatini. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 7 December 2020.
[3] Deputy Prime Minister's Office. National Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 7 December 2020.
[5] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 7 December 2020.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has in place a risk communication strategy that outlines how messages will reach populations and sectors with different communication needs. According the Joint External Evaluation (JEE), conducted in April 2018, risk communication activities in Eswatini are ad hoc and not well coordinated at all levels. The report notes that there is neither a national risk communication strategy nor any formal agreements that guide officers when they carry out such activities, and "[i]n case of an emergency the ministries and/or directorates responsible for those specific public health emergencies are designated to be the key spokespersons for initial information dissemination to the public about health risks and events, working in collaboration with the National Disaster Management Agency." Some disease specific preparedness guidelines, such as for malaria and influenza, include provisions regarding risk communication and dissemination of information through mass media such as radio, television and print in both SiSwati and English, but these provisions appear to be limited in scope. [1] According to the "Swaziland National Progress Report on the implementation of the Hyogo Framework for Action (2013 - 2015," the country's risk management agency, the National Disaster Management Agency, has limited communication capabilities, and there is a need for "effective communication and collaboration between data and information producers and users in order to empower communities under threat from natural and other hazards to take effective and timely decision-making to protect lives, property and the environment from the effects of disasters." Social media is utilized to communicate risks of hazardous weather events on a national level, but there are still gaps in communicating risks on a local level. [2] The 2020 National Contingency Plan for Novel Corona Virus has risk communication and community engagement guidance which includes "Responsive, empathic, transparent and consistent messaging in local languages through trusted channels of communication, using community-based networks and key influencers and building capacity of local entities, is essential to establish authority and trust." The plan is, however, both disease and event specific so cannot be classed as standard national reference for public health emergencies. [3] There is no additional information regarding a risk communication plan in place that reaches populations and sectors with different communication needs in Eswatini through the Ministry of Health, Emergency Preparedness and Response Unit, the National Disaster Management Agency, or the Royal Eswatini Police Service. [4,5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.

[2] PreventionWeb. 6 March 2015. "Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015) - Interim". [https://www.preventionweb.net/files/42827_SWZ_NationalHFAprogress_2013-15.pdf]. Accessed 8 December 2020.
[3] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. 8 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has in place, either in the national public health emergency response plan or in other legislation, regulation, or strategy documents, a section detailing a risk communication plan that is specifically intended for use during a public health emergency. According the Joint External Evaluation (JEE), conducted in April 2018, risk communication activities in Swaziland are ad hoc and not well coordinated at all levels. The report notes that there is neither a national risk communication strategy nor any formal agreements that guide officers when they carry out such activities, and "[i]n case of an emergency the ministries and/or directorates responsible for those specific public health emergencies are designated to be the key spokespersons for initial information dissemination to the public about health risks and events, working in collaboration with the National Disaster Management Agency." Some disease specific preparedness guidelines, such as for malaria and influenza, include provisions regarding risk communication, but these provisions appear to be limited in scope. [1] According to the "Swaziland National Progress Report on the implementation of the Hyogo Framework for Action (2013 - 2015," the country's risk management agency, the National Disaster Management Agency, has limited communication capabilities, and there is a need for "effective communication and collaboration between data and information producers and users in order to empower communities under threat from natural and other hazards to take effective and timely decision-making to protect lives, property and the environment from the effects of disasters." [2] The 2020 National Contingency Plan for Novel Corona Virus contains several references to risk communication, and it is one of the 8 pillars that the plan is structured under. It is, however, both disease and event specific so cannot be classed as standard national reference for public health emergencies. [3] There is no additional information regarding a risk communication plan in place in Eswatini through the Ministry of Health, the National Disaster Management Agency, the Royal Eswatini Police Service, or the Swazi Legal Information Institute. [4,5,6,7]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] PreventionWeb. 6 March 2015. "Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015) - Interim". [https://www.preventionweb.net/files/42827_SWZ_NationalHFAprogress_2013-15.pdf].

Accessed 8 December 2020.
[3] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 8 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[7] The Swaziland Legal Information Institute (SWAZILII). [https://swazilii.org/]. Accessed 8 December 2020.

3.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has in place a risk communication strategy that designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. According the Joint External Evaluation (JEE), conducted in April 2018, risk communication activities in Eswatini are ad hoc and not well coordinated at all levels. The report notes that there is neither a national risk communication strategy nor any formal agreements that guide officers when they carry out such activities. The report states "[i]n case of an emergency the ministries and/or directorates responsible for those specific public health emergencies are designated to be the key spokespersons for initial information dissemination to the public about health risks and events, working in collaboration with the National Disaster Management Agency. There is no information on the designation of a primary spokesman to the public. [1] According to the "Swaziland National Progress Report on the implementation of the Hyogo Framework for Action (2013 - 2015," the country's risk management agency, the National Disaster Management Agency, has limited communication capabilities, and there is a need for "effective communication and collaboration between data and information producers and users in order to empower communities under threat from natural and other hazards to take effective and timely decision-making to protect lives, property and the environment from the effects of disasters." Social media is utilized to communicate risks of hazardous weather events on a national level, but there are still gaps in communicating risks on a local level. [2] The 2020 National Contingency Plan for Novel Corona Virus makes no mention of a primary spokesperson. [3] There is no additional information on the designation of a primary spokesman through the Ministry of Health, Emergency Preparedness and Response Unit, the National Disaster Management Agency, or the Royal Eswatini Police Service. [4,5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] PreventionWeb. 6 March 2015. "Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015) - Interim". [https://www.preventionweb.net/files/42827_SWZ_NationalHFAprogress_2013-15.pdf]. Accessed 8 December 2020.
[3] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. 8 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-

health]. Accessed 8 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 1

There is publicly available evidence that the government of Eswatini utilises media platforms to inform the public about public health emergencies, but it does not seem to regularly use the platforms. According to the Joint External Evaluation (JEE), conducted in April 2018, information regarding public health risks is disseminated through "mass media such as radio, television and print" as well as cell phone texts with messages that are in both SiSwati and English. The National Disaster Management Agency also has its own Facebook page. There is, however, insufficient evidence that these platforms are regularly used to disseminate public health information unrelated to emergencies. [1,2] According to the "Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015),"[t]he media is fairly involved in the early warning information dissemination [and] uses social media for sharing information as well as the local newspapers, television and radio." This is, again, health emergency specific. [3] The Ministry of Health has a COVID-19 updates page which contains daily reports, documents and pandemic advice. This is obviously a disease and event specific platform. [4]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency] and [https://www.facebook.com/NDMASWAZILAND/]. Accessed 13 December 2020.
[3] PreventionWeb. 6 March 2015. "Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015) - Interim". [https://www.preventionweb.net/files/42827_SWZ_NationalHFAprogress_2013-15.pdf]. Accessed 8 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/covid-19-corona-virus/covid-19-press-statements-2020]. Accessed 8 December 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no publicly available evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past 2 years. A Mail and Guardian (MG) article, dated 5 April 2020, on a Southern African (COVID-19 relative) crackdown on fake news, states that in Eswatini regulations have been enacted criminalising publication with the "intention to deceive". "The regulations prohibit people, institutions and organisations from certain activities including "spreading rumours or unauthenticated information about Covid-19". The provision also prohibits "the use of print or electronic media" for information on Covid-19 "without the prior permission of the minister of health". These offences carry a significant fine of up to R20 000 (US$1250) or imprisonment for up to five years." MG argues that "Laws and policies that unduly inhibit or prohibit expression amount to violations of human rights obligations." [1] No further information on this could be found in media sources, including the BBC News website. [2]

[1] Mail and Guardian. 5 Apr 2020. 'Southern Africa has cracked down on fake news, but may have gone too far'. [https://mg.co.za/analysis/2020-04-05-southern-africa-has-cracked-down-on-fake-news-but-may-have-gone-too-far/]. Accessed 8 December 2020.
[2] British Broadcasting Corporation (BBC) News. December 2020. [https://www.bbc.com/news]. Accessed 8 December 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: 47

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: 93.53

2019

International Telecommunication Union (ITU)

3.6.3 Female access to a mobile phone

3.6.3a

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

Input number

Current Year Score: 10.18

2018-2019

Gallup; Economist Impact calculation

3.6.4 Female access to the Internet

3.6.4a

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

Input number

Current Year Score: 9.62

2018-2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available evidence that Eswatini has, in the past year, issued a restriction, without international/bilateral support, on the export/import of medical goods (eg: medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak. In fact, the Eswatini Revenue Authority (SRA) is "implementing provisions that provide for a rebate of Customs duty on goods imported for the relief of distress of persons where there is a national disaster." The SRA is implementing the fast tracking of the clearance of goods like medicaments for the fight of COVID-19. [1] No information on this could be found on the websites of the ministries of Health, Agriculture, Foreign Affairs, the Department of Immigration or WHO Disease Outbreak News. [2,3,4,5,6] Nothing further could be found on media sources.

[1] World Customs Organization (WCO). 16 April 2020. 'What Customs can do to mitigate the effect of the COVID-19 pandemic." [http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/activities-and-programmes/natural-disaster/covid_19/covid_19-categorization-of-member-input.pdf?la=en]. Accessed 8 December 2020.
[2] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[3] Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 8 December 2020.
[4] Ministry of Foreign Affairs and International Co-operation. [http://www.gov.sz/index.php/ministries-departments/ministry-of-foreign-affairs-a-international-affairs]. Accessed 8 December 2020.
[5] Department of Immigration. [http://www.gov.sz/index.php/ministries-departments/ministry-of-home-affairs/issuance-of-passports]. Accessed 8 December 2020.

[6] WHO Disease Outbreak News. 2019. [http://www.who.int/csr/don/en/]. Accessed 8 December 2020.

3.7.1b

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

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available information that Eswatini has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (eg: food, textiles, etc) due to an infectious disease outbreak in the past year. A Ministry of Commerce, Industry and Trade press statement, dated 25 March 2020 (8 days after the COVID-19 State of Emergency was declared), states that cross-border trade will continue as normal. [1] The World Organisation for Animal Health (OIE) weekly disease monitor has 3 notifiable outbreaks of African horse sickness reported by Eswatini, but there is no indication that this resulted in restrictions of the movement of non-medical goods across the border. [2] There is no additional information regarding a restriction on the movement of people or goods due to risk of infectious disease through the Ministry of Health, Ministry of Agriculture, the World Health Organisation (WHO) Disease Outbreak News (DONs) or the WHO Country site. [3, 4, 5]

[1] Ministry of Commerce, Industry and Trade. 25 March 2020. 'General guidelines for all industries'. [http://www.gov.sz/index.php/commerce-minister-speeches]. Accessed 8 December 2020.
[2] World Organisation for Animal Health (OIE). Weekly Disease Information. [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI]. Accessed 8 December 2020.
[3] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[4] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 8 December 2020.
[5] World Health Organisation (WHO). Disease Outbreak News (DONs). "Swaziland". [https://www.who.int/csr/don/archive/country/swz/en/]. Accessed 8 December 2020.
[7] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 8 December 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 Eswatini has, in the past year, implemented a ban, without international/bilateral support, on travellers arriving from a specific country or countries due to an infectious disease outbreak. A Prime Minister's statement, dated 24 March 2020, on additional COVID-19 measures, advised that "only goods and cargo as well as returning citizens and legal residents will be allowed through our borders. Returning citizens and residents will be subjected to a mandatory 14 days quarantine at designated locations except for those who are able to self-isolate." [1]

[1] Government of the Kingdom of Eswatini. 24 March 2020. Prime Minister's statement - COVID-19 Response Additional measures. [http://www.gov.sz/index.php/latest-news/204-latest-news/2414-government-press-statement-24-march]. Accessed 8 December 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: 32.85

2016

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 414.15

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 publicly available evidence that Swaziland has a public workforce strategy in place, that has been updated within the past five years, to identify fields where there is insufficient workforce and strategies to address these shortcomings. According to the "Human Resources for Health Strategic Plan: 2012-2017," one of its goals is to have "the adequate numbers

of a motivated and performing health workforce with the proper skills and knowledge to tackle current and future health challenges." The Strategic Plan outlines a very detailed methodology for determining healthcare shortages and needs by age, gender, type of care, and geographic area, including the use of the Human Resources Information System (HRIS) which collects health workforce data on the approved staff establishment, filled, and vacant posts. It also includes strategies for addressing shortcomings with training, recruitment, and scholarship funding. However, this strategic plan appears to have been last updated in 2012, and there is no publicly available evidence that it has been updated within the past five years. [1] There is also a 'National Health Sector Strategic Plan 2014-2018' which addresses many of these issues, but also has not been updated in the last 5 years. [2] According to the Joint External Evaluation (JEE), conducted in April 2018, "a human resource information database was established in 2013 to facilitate tracking movement of staff, [but] this database needs to be updated to incorporate more variables." [3] There is no other evidence of a public workforce strategy in place that has been updated within the past five years through the Ministry of Health, Ministry of Labour and Social Affairs or the Ministry of Education and Training. [4, 5, 6]

[1] The Ministry of Health. October 2012. "Human Resources for Health: Strategic Plan 2012-2017." [http://www.gov.sz/index.php/health-documents]. Accessed 8 December 2020.
[2] National Health Sector Strategic Plan 2014-2018. August 2014. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/swaziland/swaziland_nhssp_ii_draft_zero_29_aug_2014.pdf]. Accessed 8 December 2020.
[3] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[5] The Ministry of Labour and Social Affairs. [http://www.gov.sz/index.php/ministries-departments/ministry-of-labour-a-social]. Accessed 8 December 2020.
[6] The Ministry of Education and Training. [http://www.gov.sz/index.php/education-policies]. Accessed 8 December 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 210

2011

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Eswatini has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located in the country. The Eswatini Government Gazette Extraordinary, dated 27 March 2020, stated that "The Minister of Health shall identify and make available sites to be used as isolation and quarantine facilities". [1] Similarly, the Eswatini Contingency Plan for Novel Corona Virus stated that since the majority of points of entry, hospitals and health centers do not have designated isolation areas, and there was an urgent need for "Identified and designated isolation units need to be adequately equipped (8 hospitals)", [2] In both these cases, however, there is no further information on where these units have been established, or if they are permanent installations. According to the Joint External Evaluation (JEE), conducted in April 2018, there are existing isolation units in hospitals in Eswatini. However, the report also notes that there was a need to "[u]pgrade existing isolation units in tertiary hospitals and put in place isolation units in regional public health hospitals, at least one per region." [3] There is no other publicly available information regarding the specifications of these isolation units. There is no other evidence of such units through the Ministry of Health. [4] The Mbabane Government Hospital has no online presence.

[1] Eswatini Government Gazette Extraordinary. 27 March 2020. [https://www.cabri-sbo.org/uploads/files/Covid19BudgetDocuments/The-Coronavirus-COVID-19-Regulations-2020.pdf]. Accessed 13 December 2020.
[2] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 13 December 2020.
[3] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 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 Eswatini has demonstrated capacity to expand isolation capacity, and has developed plans to expand isolation capacity, in response to an infectious disease outbreak in the past two years. The March 2020 National Contingency Plan for Novel Corona Virus (Eswatini) has as a requirement to “Designate and set-up at least two facilities with adequate supplies and isolation room(s), ready to provide care to a patient or cluster of patients with confirmed COVID-19.” and also, included in Emergency response, to “Stretch the capacity of isolation beds and management of confirmed and suspected cases.” [1] The Prime Minister, in his statement of 15 April 2020’ stated “Government is renovating some of the health facilities to increase isolation capacity of the country”. [2] A U.S. Mission to Eswatini travel and health advice post, dated 6 April 2021, states “The government has designated one isolation ward within a primary health care facility and a second isolation ward in an alternate health care facility for coronavirus case management.” [3]

[1] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). March 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf].

Accessed 27 April 2021.
[2] Prime Minister's statement. 15 April 2020. [https://www.tralac.org/documents/resources/covid-19/countries/3452-eswatini-prime-ministers-statement-partial-lockdown-covid-19-update-15-april-2020/file.html]. Accessed 27 April 2021.
[3] U.S. Mission Eswatini. 6 April 2021. [https://sz.usembassy.gov/covid-19-information/]. Accessed 27 April 2021.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 0

There is no publicly available evidence of a procurement protocol in place that can be utilized by the Ministry of Health or Ministry of Agriculture for the acquisition of laboratory supplies (e.g. equipment, reagents and media) or medical supplies (e.g. equipment, PPE) for routine needs. According to the Joint External Evaluation (JEE), conducted in April 2018, there are dedicated procurement units that are responsible for the procurement of medical countermeasures and vaccines respectively, however, it is unclear to what extent these units cover equipment needs or operate according to a protocol. [1] The Central Medical Stores, within the Ministry of Health, is responsible for the supply chain management of all health commodities including medicines in the public sector, however, there is no indication that it manages the procurement process. [2] The Ministry of Health Infrastructure and Equipment Unit manages and maintains medical and non-medical equipment, but there is no evidence of a procurement protocol in place. [3] There is no other evidence of a procurement protocol in place through the Ministry of Health, Ministry of Agriculture, or the Swaziland Health Laboratory Services. [4, 5, 6] The national laboratory system has no online presence and there is no existing Public Health Institute.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] The Government of the Kingdom of Eswatini. Medical Support Services. "Central Medical Stores". [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 8 December 2020.
[3] The Government of the Kingdom of Eswatini. Infrastructure and Equipment Unit. [http://www.gov.sz/index.php/component/content/article/101-health/services/746-bio-medical-engineering-services?Itemid=799]. Accessed 8 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[5] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 8 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 8 December 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 no publicly available evidence that Eswatini maintains a stockpile of medical supplies (e.g: medical countermeasures [MCMs], medicines, vaccines, medical equipment, personal protective equipment [PPE]) for national use during a public health emergency. According to the Joint External Evaluation (JEE), conducted in April 2018, provision of medical countermeasures is the responsibility of the Central Medical Stores (CMS) within the Ministry of Health for public health and the Ministry of Agriculture for animal health. In addition, there is a dedicated procurement unit and supply infrastructure (warehouse and transport fleet) with permanent staff to run the supply chain system for the deployment of medical countermeasures with an "established routine system" for sending and receiving medical countermeasures. However, the report also states that there are no stockpiles of supplies at the local level, and there is no evidence that this stockpile of medical countermeasures is intended for emergency use. [1,2] No further information could be found through the Ministry of Health, Ministry of Agriculture, the Royal Eswatini Police Force, the National Disaster Management Agency or in an Eswatini country page in the Management Services for Help (MSH) website, which has some detail on the Medicines Regulatory Authority (MRA). [3,4,5,6,7].

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] The Government of the Kingdom of Eswatini. Medical Support Services. "Central Medical Stores". [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 8 December 2020.
[3] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[5] The Royal Eswatini Police Force. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[4] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 8 December 2020.
[5] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[6] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[7] Management Services for Help (MSH). 2020. Swaziland; Medicines Regulatory Authority (MRA). [https://www.msh.org/our-work/country/Swaziland]. Accessed 8 December 2020.

4.2.2b

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

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

Current Year Score: 0

There is no publicly available evidence of a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. In the Ministry of Health 2012 'Guidelines on Import Procedures for Medicines' document, in which

it states that the Medicine Regulatory Authority (MRA) is the national agency "responsible for the registration of, and other regulatory activities concerning, pharmaceutical and veterinary products." there is no mention of stockpiles. [1] No evidence could be found via the Joint External Evaluation (JEE), conducted in April 2018, the Central Medical Stores webpage or an Eswatini country page in the Management Services for Help (MSH) website, which has some detail on the Medicines Regulatory Authority (MRA). [2,3,4] No further information could be found through the Ministry of Health, the Royal Eswatini Police Force or the Disaster Management Agency. [5,6,7].

[1] Ministry of Health. August 2012. Guidelines on Import Procedures for Medicines. [http://www.rrfa.co.za/wp-content/uploads/2012/11/swaziland-guidelines-on-pharmaceutical-import-procedures.pdf]. Accessed 8 December 2020.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[3] The Government of the Kingdom of Eswatini. Medical Support Services. "Central Medical Stores". [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 8 December 2020.
[4] Management Services for Help (MSH). 2020. Swaziland; Medicines Regulatory Authority (MRA). [https://www.msh.org/our-work/country/Swaziland]. Accessed 8 December 2020.
[5] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[6] The Royal Eswatini Police Force. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[7] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency No further information could be found through the Ministry of Health, Ministry of Agriculture, the Royal Eswatini Police Force, the National Disaster Management Agency or in an Eswatini country page in the Management Services for Help (MSH) website, which has some detail on the Medicines Regulatory Authority (MRA). [3,4,5,6,7].

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] The Government of the Kingdom of Eswatini. Medical Support Services. "Central Medical Stores". [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 8 December 2020.
[3] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[5] The Royal Eswatini Police Force. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[4] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 8 December 2020.

[5] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[6] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 7 December 2020.
[7] Management Services for Help (MSH). 2020. Swaziland; Medicines Regulatory Authority (MRA). [https://www.msh.org/our-work/country/Swaziland]. Accessed 8 December 2020.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?
- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is insufficient publicly available evidence that Eswatini has plans, strategy, or similar documents either to leverage domestic manufacturing capacity to produce, or has a mechanism to procure, medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for use during a public health emergency. The Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, states that there are both a dedicated procurement unit responsible for the procurement of MCM and supply infrastructure to run the supply chain system for MCM. An established routine system is in place for sending and receiving medical countermeasures. A regulatory authority overseeing medical countermeasures is in the process of being established. However, included in recommendations is the development and adoption of a plan which includes establishing regional and international agreements such as MoUs, for sending and receiving MCM and personnel for support during a public health emergency. Also noted as areas which need strengthening are that there are no formal agreements/MoUs with neighbouring countries (i.e. the Southern African Development Community) and regional/international organizations (e.g. the Global Outbreak Alert and Response Network) to ensure timely mutual cross-border aid (personnel and medical countermeasures); the system of sending, receiving and distributing medical countermeasures during a public health emergency needs to be strengthened, to ensure that this can occur at any time, and that there are currently barriers to acquiring MCM quickly during an emergency, including products that fall outside the routine supply chain of the country (i.e. that address issues such as product registration and potentially lengthy customs procedures). [1] There is no evidence of such plans in Ministry of Health documents "Personal Protective Equipment for Waste Handlers", "Human Resources for Health: Strategic Plan 2012-2017" or "Swaziland National Implementation Strategy: Improving Health Care Waste Management Systems." [2,3,4] No further information could be found through the National Disaster Management Agency, the Ministry of Labour and Social Affairs, the Royal Eswatini Police Service or the Central Medical Stores webpage [5,6,7,8] The National Laboratory has no online presence.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] The Ministry of Health. "Personal Protective Equipment for Waste Handlers". [http://www.gov.sz/images/Health/personal%20protective%20equipment%20waste%20handlers.pdf]. Accessed 8 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. "Documents". [http://www.gov.sz/index.php/health-documents]. Accessed 8 December 2020.

[4] The Ministry of Health of the Kingdom of Eswatini. 2011. "Swaziland National Implementation Strategy: Improving Health Care Waste Management Systems". [http://www.gov.sz/images/Health/swaziland_implementation_strategy_finalized.pdf]. Accessed 8 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[6] The Ministry of Labour and Social Affairs of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-labour-a-social]. Accessed 8 December 2020.
[7] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[8] The Government of the Kingdom of Eswatini. Medical Support Services. "Central Medical Stores". [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 8 December 2020.

4.2.3b

Does the country meet one of the following criteria?
- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has plans, strategy, or similar documents either to leverage domestic manufacturing capacity to produce, or has a mechanism to procure, laboratory supplies (e.g. reagents, media) for use during a public health emergency. There is no evidence of such plans in the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018. [1] No further information could be found through the Ministry of Health, the National Disaster Management Agency, the Ministry of Labour and Social Affairs, the Royal Eswatini Police Service or the Central Medical Stores webpage [5,6,7,8] The National Laboratory has no online presence.

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020. The Ministry of Health of the Kingdom of Eswatini. 2011. "Swaziland National Implementation Strategy: Improving Health Care Waste Management Systems". [http://www.gov.sz/images/Health/swaziland_implementation_strategy_finalized.pdf]. Accessed 8 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[6] The Ministry of Labour and Social Affairs of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-labour-a-social]. Accessed 8 December 2020.
[7] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[8] The Government of the Kingdom of Eswatini. Medical Support Services. "Central Medical Stores". [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 8 December 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a plan, program, or guidelines in place for dispensing medical countermeasures during a public health emergency. According to the Joint External Evaluation (JEE), conducted in April 2018, provision of medical countermeasures is the responsibility of the Central Medical Stores (CMS) within the Ministry of Health for public health and the Ministry of Agriculture for animal health. There is a dedicated procurement unit and supply infrastructure (warehouse and transport fleet) with permanent staff to run the supply chain system for the deployment of medical countermeasures with an "established routine system" for sending and receiving medical countermeasures. However, the report also notes that there is no plan for emergency deployment, and "[t]he system of sending, receiving and distributing medical countermeasures during a public health emergency needs to be strengthened, to ensure that this can occur at any time" because there are currently barriers to acquiring medical countermeasures during an emergency. The draft National Multi-Hazard Contingency Plan has not yet been completed. [1] There is no other evidence of a plan, program, or guidelines in place for dispensing medical countermeasures during a public health emergency through the Ministry of Health, Ministry of Agriculture, National Disaster Management Agency, the Royal Eswatini Police Service or the 2020 National Contingency Plan for Novel Corona Virus. [2,3,4,5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[3] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 8 December 2020.
[4] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[5] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[6] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. 8 December 2020.

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

4.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a plan in place to receive health personnel from other countries to respond to a public health emergency. According to the Joint External Evaluation (JEE), conducted in April 2018, there is no system in place for personnel deployment during emergencies. Currently, there are "no formal agreements with neighbouring countries (i.e. the Southern African Development Community) and regional/international organizations (e.g. the Global Outbreak Alert and Response Network) to ensure timely mutual cross-border aid (personnel and medical countermeasures)." [1] Although the Southern African Development Community (SADC), of which Eswatini is a member, binds state parties to cooperate and assist each other in the coordination and management of disaster situations under the terms of the Protocol on Health (1999), it is unclear to what extent this would extend to the supply of personnel across borders during public health emergencies. [2] There is no other publicly available evidence of such a plan through the Ministry of Health, the Ministry of Foreign Affairs and International Co-operation, the National Disaster Management Agency, the Royal Eswatini Police Service or the 2020 National Contingency Plan for Novel Corona Virus. [3, 4, 5, 6, 7]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[2] Southern African Development Community (SADC). 1999. "Protocol on Health". [https://www.sadc.int/files/7413/5292/8365/Protocol_on_Health1999.pdf]. Accessed 8 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[4] The Ministry of Foreign Affairs and International Co-operation. [http://www.gov.sz/index.php/ministries-departments/ministry-of-foreign-affairs-a-international-affairs]. Accessed 8 December 2020.
[5] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.
[7] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 8 December 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 88.3

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: 62.99

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has 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 public health emergency. The Occupational Safety and Health Act of 2001 provides for the wellbeing and safety of employees in the public sector, but there is no evidence of any particular provisions relevant to the public health workforce or public health emergency care. [1] There is no information on prioritizing healthcare services for healthcare workers responding to public health emergency through any of; the 2018 Joint External Evaluation (JEE), the Disaster Management Agency, the Emergency Preparedness and Response (EPR) Department, the National Health Policy (2006?), the National Health Sector Strategic Plan

for 2014-2018, the Ministry of Health, Swaziland Health Laboratory Services or the Royal Eswatini Police Service. [2,3,4,5,6,7,8,9]

[1] Act No. 9 of 2001: The Occupational Safety and Health Act. 2001. [http://www.vertic.org/media/National%20Legislation/Swaziland/SZ_Occupational_Health_Act.pdf]. Accessed 7 April 2019.
[2] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 8 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 8 December 2020.
[4] The Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 8 December 2020.
[5] National Health Policy. 2006?. [https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_174726.pdf]. Accessed 8 December 2020.
[6] National Health Sector Strategic Plan 2014-2018. August 2014. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/swaziland/swaziland_nhssp_ii_draft_zero_29_aug_2014.pdf]. Accessed 8 December 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 8 December 2020.
[8] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed Accessed 8 December 2020.
[9] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 8 December 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has a system in place for public health officials and healthcare workers to communicate during a public health emergency. According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, "[m]echanisms for surge staff for risk communication during emergencies are ad hoc." As a result, the report recommended that Eswatini "[d]evelop a communication strategic plan, which includes a monitoring and evaluation (M&E) framework and standard operating procedures (SOPs)," as well as mechanisms for internal and multisectoral routine and emergency response communications. [1] Although the Emergency Preparedness and Response Unit is responsible for "[e]stablishing communication mechanisms and systems for transmitting information between the national and local levels and health-care facilities during health emergencies," neither the National Health Policy (2006) or the National Health Sector Strategic Plan (2014-2018) have any details on communication between public health officials and healthcare workers. [1,2,3,4] Neither the "Emergency Preparedness and Response Strategy 2017-2020" nor the National Multi-Hazard Contingency Plan are publicly available, so it is unknown whether special communications procedures are in place in those

plans. There is no additional evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency through the Ministry of Health or the Royal Eswatini Police Service. [5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 8 December 2020.
[3] National Health Policy. 2006?. [https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_174726.pdf]. Accessed 8 December 2020.
[4] National Health Sector Strategic Plan 2014-2018. August 2014. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/swaziland/swaziland_nhssp_ii_draft_zero_29_aug_2014.pdf]. Accessed 8 December 2020.
[5] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 9 December 2020.

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that public health officials and healthcare workers have a system in place to communicate during a public health emergency nor does any system in place encompass workers in both the public and private sectors. According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, '[t]here are no mechanisms in place to facilitate collaboration (i.e. secondment of staff) between the private and public sector for surveillance and response to health emergencies." As a result, the report recommended that Eswatini "[d]evelop collaboration mechanisms with the private sector, especially to prepare for response to public health emergencies." [1] Although the Emergency Preparedness and Response Unit is responsible for "[e]stablishing communication mechanisms and systems for transmitting information between the national and local levels and health-care facilities during health emergencies," neither the National Health Policy (2006) or the National Health Sector Strategic Plan (2014-2018) have any details on communication between public health officials and healthcare workers, or that such a system encompasses healthcare workers in both the private and the public sectors. [1,2,3,4] Neither the "Emergency Preparedness and Response Strategy 2017-2020" nor the National Multi-Hazard Contingency Plan are publicly available, so it is unknown whether special communications procedures are in place in those plans. There is no additional evidence of a communications system that encompasses healthcare workers in both the private and the public sectors through the Ministry of Health or the Royal Eswatini Police Service. [5,6]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 8 December 2020.
[3] National Health Policy. 2006?. [https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_174726.pdf]. Accessed 8 December 2020.

[4] National Health Sector Strategic Plan 2014-2018. August 2014. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/swaziland/swaziland_nhssp_ii_draft_zero_29_aug_2014.pdf]. Accessed 8 December 2020.
[5] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[6] The Royal Eswatini Police Service. [http://www.police.gov.sz/]. Accessed 9 December 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the national public health system of Eswatini is monitoring for and tracking the number of healthcare associated infections that take place in healthcare facilities. According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, Eswatini has had comprehensive infection prevention control (IPC) guidelines in place since 2014 for healthcare facilities and personnel, but these have not yet been incorporated into a national implementation plan for antimicrobial resistance (AMR) or healthcare associated infection awareness. The report noted that the public health system of Eswatini did not actively conduct standardized surveillance and management of healthcare associated infections. [1] There is no other evidence of a system for monitoring and tracking the number of healthcare associated infections in Eswatini through the Ministry of Health, Swaziland Health Laboratory Services, the World Health Organisation (WHO) country page for the Kingdom of Eswatini or the 2020 National Contingency Plan for Novel Corona Virus. [2,3,4,5]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[4] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 9 December 2020.
[5] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 9 December 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini requires ethical review board approval prior to the beginning of a clinical trial. Although the Ministry of Health maintains a Department of Pharmaceuticals and Medicines and a Department of Clinical Services, there is no evidence of an approval process prior to clinical trials for either new drugs or for research. [1, 2] According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, the Central Medical Stores, within the Ministry of Health, provide and distribute medical countermeasures during emergencies, but there is no information regarding a review process prior to approval. [3, 4] The Medicines and Related Substances Control Act (2016) regulates the control of medicines and related substances in Eswatini. Section 56 of the Act (Clinical trials) makes no mention of ethical review. [4, 5] One of the roles of the Swaziland Health Laboratory Services is to provide guidelines for clinical trials and set quality assurance standards, but there is no evidence of an ethical review process. [6] There is no other evidence of an ethical review board approval process for clinical trials through the Ministry of Health. [7]

[1] The Ministry of Health of the Kingdom of Eswatini. Clinical Services. [http://www.gov.sz/index.php/departments-sp-654042511/clinical-services]. Accessed 9 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. Pharmaceuticals and Medicines. [http://www.gov.sz/index.php/3rd-national-health-and-research-conference]. Accessed 9 December 2020.
[3] The Ministry of Health of the Kingdom of Eswatini. Central Medical Stores. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 9 December 2020.
[4] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[5] Medicines and Related Substances Control Act 2016 [https://www.rrfa.co.za/wp-content/uploads/2012/11/Swaziland-Medicines-Related-Substances-Control-Act-9-2016.pdf]. Accessed 9 December 2020. 6] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.

4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. Although the Ministry of Health maintains both a Department of Pharmaceuticals and Medicines and a Department of Clinical Services, there is no evidence of an approval process prior to beginning clinical trials for unregistered medical countermeasures. [1, 2] According to the Joint External Evaluation (JEE), conducted in April 2018, the provision and deployment of medical countermeasures is the responsibility of the Central Medical Stores, within the Ministry of Health, but there is no publicly available indication of an expedited process for approval during ongoing pandemics. [3, 4] The Medicines and Related Substances Control Act (2016) regulates the control of medicines and related substances in Eswatini but there is mention of an expedited process during pandemics. [3, 5] The JEE does note, however, that Eswatini is currently in the process of establishing a regulatory authority to oversee medical countermeasures. [3] One of the roles of the Swaziland Health Laboratory Services is to provide guidelines for clinical trials and set quality assurance standards, but there is no evidence of an expedited process for approving clinical trials. [6] There is no other evidence of an expedited process for clinical trials for unregistered medical countermeasures to treat ongoing pandemics through the Ministry of Health, the Emergency Preparedness and Response Department, or the National Disaster Management Agency. [7, 8, 9]

[1] The Ministry of Health. Clinical Services. [http://www.gov.sz/index.php/departments-sp-654042511/clinical-services]. Accessed 9 December 2020.
[2] The Ministry of Health. Pharmaceuticals and Medicines. [http://www.gov.sz/index.php/3rd-national-health-and-research-conference]. Accessed 9 December 2020.
[3] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[4] The Ministry of Health. Central Medical Stores. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 9 December 2020.
[5] Medicines and Related Substances Control Act. 2016. [https://www.rrfa.co.za/wp-content/uploads/2012/11/Swaziland-Medicines-Related-Substances-Control-Act-9-2016.pdf]. Accessed 9 December 2020.
[6] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[7] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[8] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 9 December 2020.
[9] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there is a government agency responsible for approving new medical countermeasures for humans in Eswatini. According to the Joint External Evaluation (JEE), conducted in April 2018, the provision and deployment of medical countermeasures is the responsibility of the Central Medical Stores, within the Ministry of Health, but there is no publicly available indication that it regulates new medical countermeasures. [1, 2] The Medicines and Related Substances Control Act (2016) regulates the control of medicines and related substances in Eswatini, but there is no mention of countermeasures in the Act. [1,3] The JEE does note, however, that Eswatini is currently in the process of establishing a regulatory authority to oversee medical countermeasures. [1] One of the roles of the Swaziland Health Laboratory Services is to provide guidelines for clinical trials and set quality assurance standards, but there is no evidence that this currently includes the approval of new countermeasures. [4] There is no other evidence of a government agency responsible for approving new medical countermeasures (MCM) for humans through the Ministry of Health, the Emergency Preparedness and Response Department, or the National Disaster Management Agency. [5, 6, 7]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] The Ministry of Health. Central Medical Stores. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 9 December 2020.
[3] Medicines and Related Substances Control Act of 2016. [https://www.rrfa.co.za/wp-content/uploads/2012/11/Swaziland-Medicines-Related-Substances-Control-Act-9-2016.pdf]. Accessed 9 December 2020.
[4] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[5] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[6] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 9 December 2020.
[7] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 2020.

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Eswatini has an expedited process for approving medical countermeasures for human use during public health emergencies. According to the Joint External Evaluation (JEE), conducted in April 2018, the provision and deployment of medical countermeasures is the responsibility of the Central Medical Stores within the Ministry of Health, but there is no indication of an expedited process for approval for human use during public health emergencies. [1, 2] The Medicines and Related Substances Control Act (2016) regulates the control of medicines and related substances in Eswatini, but there is no mention of countermeasures in the Act. [3, 1] The JEE does note, however, that Eswatini is currently in the process of establishing a regulatory authority to oversee medical countermeasures. [1] One of the roles of the Swaziland Health Laboratory Services is to provide guidelines for clinical trials and set quality assurance standards, but there is no evidence of an expedited process for approving medical countermeasures for human use during public health emergencies. [4] There is no other evidence of such a process through the Ministry of Health, the Emergency Preparedness

and Response Department, or the National Disaster Management Agency. [5, 6, 7]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] The Ministry of Health. Central Medical Stores. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health/medical-support-services/101-health/services/745-central-medical-stores]. Accessed 9 December 2020.
[3] The Government of the Kingdom of Eswatini. 2016. "Medicines and Related Substances Control Act".[https://webcache.googleusercontent.com/search?q=cache:urojVMYHBHMJ:https://www.medbox.org/swaziland-medicines-and-related-substances-control-act-2016/download.pdf+&cd=1&hl=en&ct=clnk&gl=us]. Accessed 9 December 2020.
[4] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[5] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[6] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 9 December 2020.
[7] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 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: 1

There is publicly available evidence that Eswatini has integrated pandemics into the national risk reduction strategy, and also has standalone national disaster risk reduction strategies for epidemics and pandemics. According to the Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015), the health sector has mainstreamed disaster risk reduction through the establishment of the Emergency Preparedness and Response Unit within the Ministry of Health, which has developed contingency plans for the management of epidemics such as Ebola. A Strategic Goal Area of the framework is "The systematic incorporation of risk reduction approaches into the design and implementation of emergency preparedness, response and recovery programmes in the reconstruction of affected communities." [1] The Emergency Preparedness and Response Department (EPR) is the Ministry of Health's vital public service that coordinates and delivers pre- hospital medicine, epidemic preparedness and response and disaster risk management. "The EPR system is a multi-tiered system of an integrated solution of Emergency Medical Services (EMS), Epidemic and Pandemic Preparedness and Response, Emergency Communication Centre (977) and Health Services for Disasters (H4D)" [2] The Disaster Management Act of 2006 established the National Disaster Management Agency (NDMA), one of whose aims is to "Strengthen Disaster Risk Reduction governance, legal and institutional framework at all levels." [3] According to the Joint External Evaluation (JEE), conducted in April 2018, Eswatini has implemented the Integrated Disease Surveillance and Response (IDSR) strategy which established epidemic task forces at national and regional levels including rapid response teams. [4] Other plans, such as the National Health Policy [5] the National Multi-Hazard Contingency Plan (2012 to 2013) [6] and the National Health Sector Strategic Plan [7] have been also been made.

[1] PreventionWeb. 6 March 2015. "Swaziland National progress report on the implementation of the Hyogo Framework for Action (2013-2015) - Interim". [https://www.preventionweb.net/files/42827_SWZ_NationalHFAprogress_2013-15.pdf]. Accessed 9 December 2020.
[2] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 9 December 2020.
[3] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 2020.
[4] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[5] National Health Policy. 2006?. [https://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---ilo_aids/documents/legaldocument/wcms_174726.pdf]. 7 December 2020.
[6] National Multi Hazard Contingency Plan 2012 to 2013. [https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/Multi%20Hazard%20Contingency%20Plan%20MHCP%20Consolidated%20.2012_Inserted%20Signatures.pdf]. Accessed 14 December 2020.
[7] National Health Sector Strategic Plan 2014-2018. August 2014. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/swaziland/swaziland_nhssp_ii_draft_zero_29_aug_2014.pdf]. Accessed 14 December 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0

There is no publicly available evidence that Eswatini has cross-border agreements, protocol, or memoranda of understanding (MOUs) with neighbouring countries with regards to public health emergencies. According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, "[t]here are no formal agreements/MoUs with neighbouring countries (i.e. the Southern African Development Community) and regional/international organizations (e.g. the Global Outbreak Alert and Response Network) to ensure timely mutual cross-border aid (personnel and medical countermeasures)." [1] Although Swaziland is a member of the Southern African Development Community (SADC), the Protocol on Health (1999) between member countries does not explicitly address cooperation during public health emergencies. [2, 3] There is no other evidence of a cross-border agreement, protocol, or MOUs between Swaziland and neighbouring countries regarding public health emergencies through the Ministry of Health, the Ministry of Foreign Affairs and International Co-operation, the Emergency Preparedness and Response Department, or the National Disaster Management Agency. [4, 5, 6, 7]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] Southern African Development Community (SADC). 1999. "Protocol on Health". [https://www.sadc.int/files/7413/5292/8365/Protocol_on_Health1999.pdf]. Accessed 9 December 2020.
[3] The Ministry of Foreign Affairs and International Co-operation of the Kingdom of Eswatini. "SADC National Coordination Unit". [http://www.gov.sz/index.php/department/sadc-national-coordination-unit]. Accessed 9 December 2020.
[4] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[5] The Ministry of Foreign Affairs and International Co-operation. [http://www.gov.sz/index.php/ministries-departments/ministry-of-foreign-affairs-a-international-affairs]. Accessed 9 December 2020.
[6] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 9 December 2020.
[7] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 2020.

5.2.1b

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

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

Current Year Score: 0

There is no publicly available evidence that Eswatini has cross-border agreements, protocol, or memoranda of understanding (MOUs) with neighbouring countries with regards to animal health emergencies. According to the Joint External Evaluation (JEE) for Eswatini, conducted in April 2018, "[t]here are no formal agreements/MoUs with neighbouring countries (i.e. the Southern African Development Community) and regional/international organizations (e.g. the Global Outbreak Alert and Response Network) to ensure timely mutual cross-border aid (personnel and medical countermeasures)." [1] Although Eswatini is a member of the Southern African Development Community (SADC), the Protocol on Health (1999) between member countries does not explicitly address cooperation during animal health emergencies. [2, 3] The World Organisation for Animal Health (OIE) Performance of effective Veterinary Services (PVS) report and follow-up report, conducted in September 2007 and May 2015 respectively, do not mention a protocol in place for cross-border support in the event of an animal health emergency. [4, 5] There is no other evidence of a cross-border agreement, protocol, or MOUs between Eswatini and neighbouring countries regarding animal health emergencies through the Ministry of Health, Ministry of Agriculture, the Ministry of Foreign Affairs and International Co-operation, the Emergency Preparedness and Response Department, or the National Disaster Management Agency. [6, 7, 8, 9, 10]

[1] World Health Organisation (WHO). Joint External Evaluation of the Kingdom of Eswatini. 9-13 April 2018. [https://apps.who.int/iris/bitstream/handle/10665/274780/WHO-WHE-CPI-2018.27-eng.pdf?ua=1]. Accessed 9 December 2020.
[2] Southern African Development Community (SADC). 1999. "Protocol on Health". [https://www.sadc.int/files/7413/5292/8365/Protocol_on_Health1999.pdf]. Accessed 9 December 2020.
[3] The Ministry of Foreign Affairs and International Co-operation of the Kingdom of Eswatini. "SADC National Coordination Unit". [http://www.gov.sz/index.php/department/sadc-national-coordination-unit]. Accessed 9 December 2020.
[4] World Organisation for Animal Health (OIE). September 2007. "Swaziland: Tool for the evaluation of Performance of Veterinary Services: Final Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-FinalReport-Swaziland.pdf]. Accessed 9 December 2020.
[5] World Organisation for Animal Health (OIE). May 2015. "Swaziland: OIE PVS Evaluation Follow-Up Mission Report". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/20150810_PVSEvaluation_FinalReport_Swaziland.pdf]. Accessed 9 December 2020.
[6] The Ministry of Health of the Kingdom of Eswatini. [ht tp://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[7] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 December 2020.
[8] The Ministry of Foreign Affairs and International Co-operation. [http://www.gov.sz/index.php/ministries-departments/ministry-of-foreign-affairs-a-international-affairs]. Accessed 9 December 2020.
[9] Ministry of Health. Emergency Preparedness and Response (EPR) Department. [http://www.gov.sz/index.php/departments-sp-654042511?id=476]. Accessed 9 December 2020.
[10] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 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: 0

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 1

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

Does the country meet at least 2 of the following criteria?

- Membership in Global Health Security Agenda (GHSA)
- Membership in the Alliance for Country Assessments for Global Health Security and IHR Implementation (JEE Alliance)
- Membership in the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP)

- Membership in the Australia Group (AG)
- Membership in the Proliferation Security Initiative (PSI)

Needs to meet at least two of the criteria to be scored a 1 on this measure. , Yes for five = 1 , Yes for four = 1 , Yes for three = 1 , Yes for two = 1 , Yes for one = 0 , No for all = 0

Current Year Score: 0

2021

Global Health Security Agenda; JE Alliance; Global Partnership; Australia Group; PSI

5.4 JOINT EXTERNAL EVALUATION (JEE) AND PERFORMANCE OF VETERINARY SERVICES PATHWAY (PVS)

5.4.1 Completion and publication of a Joint External Evaluation (JEE) assessment and gap analysis

5.4.1a

Has the country completed a Joint External Evaluation (JEE) or precursor external evaluation (e.g., GHSA pilot external assessment) and published a full public report in the last five years?

Yes = 1 , No = 0

Current Year Score: 1

2021

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

5.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years. Eswatini Prime Minister, Dr. Barnabas Sibusiso Dlamini, states in the Forward of the National Multisectoral HIV and AIDS Strategic Framework (NSF) 2018 - 2023 (published in June 2018) "our Government is faced with resource constraints in the light of extensive development priorities. In recognition of the realities, the NSF has included a chapter on innovative measures to support the fiscal sustainability of the response." Chapter 4, titled "Sustainable financing of the HIV response", contains details of funding provided by both Eswatini and external partners. [1] There is no further information on national funding through the Ministry of Health, the Ministry of Agriculture, the budget speeches for 2019 and 2020 or media sources. [2,3,4,5]

[1] The National Multisectoral HIV and AIDS Strategic Framework (NSF) 2018 - 2023. June 2018. [https://hivpreventioncoalition.unaids.org/wp-content/uploads/2019/06/Eswatini_NSF-2018-2023_final.pdf]. Accessed 9 December 2020.
[2] Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[3] Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 December 2020.
[4] The Minister for Finance. 27 February 2019. Budget Speech 2019. [http://www.gov.sz/images/PM/Budget-Speech-2019.pdf]. Accessed 9 December 2020.
[5] The Minister for Finance. 14 February 2020. Budget Speech 2020.

[http://www.gov.sz/images/FinanceDocuments/Budget-Speech-2020.pdf]. Accessed 9 December 2020.

5.5.2 Financing under Joint External Evaluation (JEE) and Performance of Veterinary Services (PVS) reports and gap analyses

5.5.2a

Does the Joint External Evaluation (JEE) report, National Action Plan for Health Security (NAPHS), and/or national GHSA roadmap allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1 , No/country has not conducted a JEE = 0

Current Year Score: 0

2021

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

5.5.2b

Does the Performance of Veterinary Services (PVS) gap analysis and/or PVS assessment allocate or describe specific funding from the national budget (covering a time-period either in the future or within the past five years) to address the identified gaps?

Yes = 1 , No/country has not conducted a PVS = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

Is there a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency (such as through a dedicated national reserve fund, an established agreement with the World Bank pandemic financing facility/other multilateral emergency funding mechanism, or other pathway identified through a public health or state of emergency act)?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Eswatini has a publicly identified special emergency public financing mechanism or funds which the country can access in the face of a public health emergency. Although, according to the World Bank Group International Development Association (IDA), Eswatini is not an eligible country for borrowing [1], the Group "approved $6 million in health emergency funding for a project that will help strengthen the country's health system preparedness to respond to this and potential future emergencies". These funds, however, were specifically to "to prevent, detect and respond to the threat posed by COVID-19" and there is no reference to generic future public health emergencies or such preparation as strengthening overall surveillance or building the health workforce. [2] The IMF also approved emergency financial assistance ofUS$110.4 million under the Rapid Financing Instrument to assist in "addressing the severe economic

impact of the COVID-19 pandemic." The Rapid Financing Instrument (RFI) provides rapid financial assistance to all member countries facing an urgent balance of payments need. [3] There is no further evidence of a public financing mechanism for public health emergencies through the Ministry of Health, the World Bank Pandemic Emergency Funding Facility or the National Disaster Management Agency. [4, 5, 6]

[1] World Bank Group. International Development Association. "Borrowing Countries". [http://ida.worldbank.org/about/borrowing-countries]. Accessed 9 December 2020.
[2] The World Bank. 20 April 2020. World Bank Group Provides Financing to Eswatini for COVID-19. [https://www.worldbank.org/en/news/press-release/2020/04/20/world-bank-group-provides-financing-to-eswatini-for-covid-19]. Accessed 9 December 2020.
[3] International Monetary Fund (IMF). 29 July 2020. IMF Executive Board Approves US$110.4 Million in Emergency Support to The Kingdom of Eswatini to Address The COVID-19 Pandemic. [https://www.imf.org/en/News/Articles/2020/07/29/pr20274-eswatini-imf-executive-board-approves-us-million-emergency-support-covid-19-pandemic]. Accessed 9 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[5] World Bank. December 2017. "Pandemic Emergency Financing Facility: Operational Brief for Eligible Countries". [http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf]. Accessed 9 December 2020.
[6] Deputy Prime Minister's Office. Disaster Management Agency. [http://www.gov.sz/index.php/ministries-departments/the-deputy-prime-minister-s-office/disaster-management-agency]. Accessed 9 December 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 insufficient publicly available evidence that senior leaders in Eswatini have, in the past three years, made public commitments to support other countries to improve capacity to address epidemic threats by providing financing or support. There is also insufficient evidence that a senior leader in Eswatini has, in the past three years, made public commitments to improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support. There is, however, evidence of support for health system improvements more broadly. Eswatini Prime Minister, Dr. Barnabas Sibusiso Dlamini, states in the Forward of the National Multisectoral HIV and AIDS Strategic Framework (NSF) 2018 - 2023 (published in June 2018) "our Government is faced with resource constraints in the light of extensive development priorities. In recognition of the realities, the NSF has included a chapter on innovative measures to support the fiscal sustainability of the response." Chapter 4; "Sustainable financing of the HIV response", contains details of funding provided by both Eswatini and external partners. [1] Although Eswatini has sought to improve its capacity to combat malaria through funding mechanisms in the past, there is no evidence of public statements by senior leaders. [2] There is no additional evidence that senior leaders in Eswatini have made public commitments to either support other countries to improve capacity to address epidemic threats or to improve its own capacity to address epidemic threats through the Ministry of Health, Ministry of Agriculture, the

Swaziland Health Laboratory Services, Ministry of Foreign Affairs and International Co-operation, or the World Health Organisation (WHO) country page for the Kingdom of Eswatini. [3,4,5,6,7]

[1] The National Multisectoral HIV and AIDS Strategic Framework (NSF) 2018 - 2023. June 2018. [https://hivpreventioncoalition.unaids.org/wp-content/uploads/2019/06/Eswatini_NSF-2018-2023_final.pdf]. Accessed 9 December 2020.
[2] Global Health Sciences. March 2015. "Eliminating Malaria in Swaziland". [https://globalhealthsciences.ucsf.edu/sites/globalhealthsciences.ucsf.edu/files/pub/swaziland2015-final.pdf]. Accessed 9 December 2020.
[3] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[4] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 December 2020.
[5] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[6] The Ministry of Foreign Affairs and International Co-operation. [http://www.gov.sz/index.php/ministries-departments/ministry-of-foreign-affairs-a-international-affairs]. Accessed 9 December 2020.
[7] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 9 December 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:
- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

Current Year Score: 1

There is some evidence that Eswatini has, in the past 3 years, invested finances to either improve its own capacity, or supported other countries to improve their capacity, to address epidemic threats. According to the Global Health Security tracking dashboard, Eswatini has received USD234 million between the years 2014 and 2020 from donors to help to improve its capacity to mount emergency response operations. [1] These efforts have primarily focused on combatting the spread of HIV/AIDS and malaria. [2, 3] There is no other evidence that Swaziland has invested finances to improve its own capacity to handle epidemic threats, or the capacity of other countries, through the Ministry of Health, Ministry of Agriculture, Swaziland Health Laboratory Services, Ministry of Foreign Affairs and International Co-operation, and the World Health Organisation (WHO) country page for Swaziland. [4, 5, 6, 7, 8]

[1] Global Health Security Funding Tracker. [https://tracking.ghscosting.org/#/data]. Accessed 9 December 2020.
[2] Presidents Emergency Plan for AIDS Relief (PEPFAR). 29 March 2019. "Swaziland Country Operational Plan (COP) 2018 Strategic Direction Summary". [https://www.pepfar.gov/documents/organization/285864.pdf]. Accessed 9 December 2020.
[3] Global Health Sciences. March 2015. "Eliminating Malaria in Swaziland". [https://globalhealthsciences.ucsf.edu/sites/globalhealthsciences.ucsf.edu/files/pub/swaziland2015-final.pdf]. Accessed 9 December 2020.
[4] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.

[5] The Ministry of Agriculture. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 December 2020.
[6] The Ministry of Health. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[7] The Ministry of Foreign Affairs and International Co-operation. [http://www.gov.sz/index.php/ministries-departments/ministry-of-foreign-affairs-a-international-affairs]. Accessed 9 December 2020.
[8] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 9 December 2020.

5.5.4c

Is there evidence that the country has fulfilled its full contribution to the WHO within the past two years?

Yes = 1 , No = 0

Current Year Score: 0

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 evidence that Eswatini has a plan or policy in place for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens with international organisations or other countries that goes beyond influenza. As a member of the Southern African Development Community (SADC), Eswatini has signed multiple coordination documents with regional partners, including the Protocol on Health (1999). However, despite the fact that the agreements government health coordination during emergencies oblige each member country to "cooperate," "assist," and "share resources and experiences," there is no indication that the agreements set out a plan or policy regarding epidemiological data specifically. [1] Although Eswatini has appeared to work with South African public health authorities in the past on initiatives related to HIV/AIDS, malaria, and rabies, there is no publicly available evidence of a plan or policy regarding data sharing being in place. [2, 3, 4] There is no evidence of a plan for sharing epidemiological data of any kind with international organisations or other countries beyond influenza through the Ministry of Health, Ministry of Agriculture, Swaziland Health Laboratory Services, the World Health Organisation (WHO) country page for the Kingdom of Eswatini, or in relevant media

sources. [5, 6, 7, 8]

[1] Southern African Development Community (SADC). "Protocol on Health (1999)". [https://www.sadc.int/files/7413/5292/8365/Protocol_on_Health1999.pdf]. Accessed 9 December 2020.
[2] The Government of the Kingdom of Eswatini (formerly Swaziland). National Emergency Council on HIV and AIDS. March 2009. "Swaziland: HIV Prevention Response and Modes of Transmission Analysis". [http://siteresources.worldbank.org/INTHIVAIDS/Resources/375798-1103037153392/SwazilandMOT22March09Final.pdf]. Accessed 9 December 2020.
[3] Sharp, Brian, et al. The American journal of tropical medicine and hygiene. February 2007. "Seven years of regional malaria control collaboration--Mozambique, South Africa, and Swaziland". [https://www.researchgate.net/publication/6549386_Seven_years_of_regional_malaria_control_collaboration--Mozambique_South_Africa_and_Swaziland]. Accessed 9 December 2020.
[4] Kunene, B.S. World Organisation for Animal Health (OIE). 2015. "Cross Border Collaboration: The Influence of the Champion Country: Rabies in Swaziland". [http://www.oie.int/esp/rabies2015/abstracts/Session_6.3_Bavukile_Kunene_Cross_border_collaboration_abstracts.pdf]. Accessed 9 December 2020.
[5] The Ministry of Health. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[6] The Ministry of Agriculture of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-agriculture]. Accessed 9 December 2020.
[7] The Ministry of Health of the Kingdom of Eswatini. Swaziland Health Laboratory Services. [http://www.gov.sz/index.php/component/content/article/101-health/services/566-laboratory-services]. Accessed 9 December 2020.
[8] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 9 December 2020.

5.6.1b

Is there public evidence that the country has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years?

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available evidence that Eswatini has failed to share samples in according with the Pandemic Influenza Preparedness (PIP) framework within the past two years. There is no evidence that Eswatini has not shared samples in accordance with the PIP framework through the Ministry of Health, World Health Organisation (WHO) country page for the Kingdom of Eswatini, the WHO Disease Outbreak News (DONs), and both international and local media outlets. [1, 2, 3] The last known influenza outbreak in Eswatini was reported by the WHO in 2015, at which time Eswatini received PIP funding to combat the threat. [4]

[1] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[2] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 9 December 2020.
[3] World Health Organisation (WHO). Disease Outbreak News (DONs). "Swaziland". [https://www.who.int/csr/don/archive/country/swz/en/]. Accessed 9 December 2020.
[4] World Health Organisation (WHO). 2018. "Pandemic Influenza Preparedness Framework Partnership Contribution High-

Level Implementation Plan I. Final Report 2014-2017". https://apps.who.int/iris/bitstream/handle/10665/276211/WHO-WHE-IHM-PIP-2018.3-eng.pdf?ua=1]. Accessed 9 December 2020.

5.6.1c

Is there public evidence that the country has not shared pandemic pathogen samples during an outbreak in the past two years?

Yes = 0 , No = 1

Current Year Score: 1

There is no publicly available evidence that Eswatini has failed to share pandemic pathogen samples, including COVID-19 samples during the current global pandemic. The National Contingency Plan for Novel Corona Virus recommends that "If COVID-19 testing capacity does not exist at national level, samples should be sent to a regional or international reference laboratory with appropriate capacity." [1] There is no other evidence that Eswatini has not shared pandemic pathogen samples through the Ministry of Health, World Health Organisation (WHO) country page for the Kingdom of Eswatini, and both international and local media outlets. [2,3]

[1] World Health Organisation (WHO) National Contingency Plan for Novel Corona Virus (Eswatini). 2020. [https://www.unicef.org/eswatini/media/771/file/National-novel-coronavirus-preparedness-and-response-plan-2020.pdf]. Accessed 14 December 2020.
[2] The Ministry of Health of the Kingdom of Eswatini. [http://www.gov.sz/index.php/ministries-departments/ministry-of-health]. Accessed 9 December 2020.
[3] World Health Organisation (WHO). "Eswatini". [https://www.afro.who.int/countries/eswatini]. Accessed 9 December 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: 1

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 1

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: 1

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 33

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 1

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: 1

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: 1

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption?

No threat = 4, Low threat = 3, Moderate threat = 2, High threat = 1, Very high threat = 0

Current Year Score: 4

2021

Economist Intelligence

6.1.4b

What is the level of illicit arms flows within the country?

4 = Very high, 3 = High, 2 = Moderate, 1 = Low, 0 = Very low

Current Year Score: 3

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

How high is the risk of organized criminal activity to the government or businesses in the country?

Very low = 4, Low = 3, Moderate = 2, High = 1, Very high = 0

Current Year Score: 3

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

Is this country presently subject to an armed conflict, or is there at least a moderate risk of such conflict in the future?

No armed conflict exists = 4, Yes; sporadic conflict = 3, Yes; incursional conflict = 2, Yes, low-level insurgency = 1, Yes; territorial conflict = 0

Current Year Score: 3

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: 2

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: 88.42

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: 0.42

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: 9.8

2016

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: 2

A Democracy Works Foundation article, dated 20 May 2020, states "Eswatini has a large informal economy at about 53.4% of GDP (2016 ILO Statistics)" [1]

[1] Democracy Works Foundation. 20 May 2020. 'Assessing COVID-19 response measures - Eswatini'. [https://democracyworks.org.za/assessing-the-measures-at-country-level-case-of-eswatini/]. Accessed 9 January 2020.

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 0

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 0

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: 0.55

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: 2

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 23.98

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: 0.71

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: 2

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: 59.4

2018

United Nations; World Bank, UNICEF; Institute for Health Metrics and Evaluation (IHME); Central Intelligence Agency (CIA) World Factbook

6.5.1b

Age-standardized NCD mortality rate (per 100 000 population)

Input number

Current Year Score: 917.1

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 4.01

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 10.7

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 16.5

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: 69.01

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 58.35

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: 228.68

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: 2

2018

Wellcome Trust Global Monitor 2018