

South Sudan

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

There is no publicly available evidence that South Sudan has a national antimicrobial resistance (AMR) plan for the surveillance, detection and reporting of priority AMR pathogens. South Sudan does not have a national AMR plan on the World Health Organisation (WHO) Library of National Action Plans website. [1] According to the Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15-20 October 2017, there is no national plan of any kind to detect, surveil, or report AMR pathogens and AMR pathogens are not mentioned in the existing National Public Health Laboratory Strategic Plan 2010-2015. [2] There is no evidence on any portion of the Ministry of Health website, including the International Health Regulation, Policy, Planning and Budgeting, or Pharmacy Policy & Practice pages. [3] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version has no information about AMR pathogens. [4]

[1] World Health Organisation (WHO). "Library of National Action Plans." [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 02 March 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 02 March 2021.

[3] Republic Of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 02 March 2021.

[4] Republic of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 02 March 2021

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 publicly available information that South Sudan has a national laboratory system which tests for priority AMR pathogens. South Sudan does not have a national antimicrobial resistance (AMR) plan. [1] According to the Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, the country has one National Public Health Laboratory (NPHL) of Juba, but does not discuss a broader national laboratory system and

does not discuss the 7+1 priority AMR diseases. The JEE also mentions that the National Public Health Laboratory Strategic Plan 2010-2015 does not mention AMR pathogens. [2] There is no evidence on any portion of the Ministry of Health, including the International Health Regulation, Policy, Planning and Budgeting. or Pharmacy Policy & Practice pages. [3] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version has no information about AMR pathogens. [4]

[1] World Health Organisation (WHO). "Library of National Action Plans." [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 02 March 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 02 March 2021

[3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss/]. Accessed 02 March 2021

[4] Republic of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan. [https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 02 March 2021

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the government of South Sudan conducts detection or surveillance activities for antimicrobial residues or AMR organisms. South Sudan does not have a national antimicrobial resistance (AMR) plan. [1] There is no evidence in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017. [2] Ministry of Environment and Forestry website could not be accessed for details at the time of research. [3] There is no discussion of AMR surveillance on the Ministry of Health website. [4] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version has no information about AMR pathogen surveillance. [5]

[1] World Health Organisation (WHO). "Library of National Action Plans." [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 02 March 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 02 March 2021

[3] Republic of South Sudan. Ministry of Environment and Forestry of the Republic of South Sudan. [http://www.mef-ssd.org/]. Accessed 02 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss/]. Accessed 02 March 2021

[5] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 02 March 2021

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 0

There is no evidence that South Sudan has a national law or regulation in place requiring prescriptions for antibiotic use for humans. South Sudan does not have a national antimicrobial resistance (AMR) plan. [1] According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15-20 October 2017, the country does not require a prescription for antibiotics. [2] The Ministry of Health of the Government of South Sudan's Southern Sudan Pharmacy Protocol does not mention AMR or any antibiotic regulations. [3] There is no mention of antibiotic laws on the Ministry of Health or related websites. [4] There is evidence of rampant overuse of antibiotics in the country's medical facilities, as described by a British doctor working in a South Sudan hospital in an 18 April 2018 article, "Everywhere I look on the ward, I see diagnostic uncertainty met by an antibiotic assault." [5]

[1] World Health Organisation (WHO). "Library of National Action Plans." [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 02 March 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 02 March 2021

[3] Republic of South Sudan. Ministry of Health of Government of Southern Sudan. "Southern Sudan Pharmacy Protocol." [https://digicollections.net/medicinedocs/documents/s21012en/s21012en.pdf]. Accessed 02 March 2021.

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss/]. Accessed 02 March 2021

[5] Longitude Prize. 18 April 2018. "On the Frontline of Antibiotic Resistance in South Sudan."

[https://longitudeprize.org/blog-post/frontline-antibiotic-resistance-south-sudan]. Accessed 02 March 2021

1.1.2b

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

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

Current Year Score: 0

There is no evidence that South Sudan has a national law or regulation in place requiring prescriptions for antibiotic use in animals. South Sudan does not have a national antimicrobial resistance (AMR) plan. [1] According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15-20 October 2017, the country does not require a prescription for antibiotics for humans or animals. [2] The Ministry of Health of the Government of South Sudan's Southern Sudan Pharmacy Protocol does not mention AMR or any antibiotic regulations for animals. This document does not list a publication date. [3] There is no mention of antibiotic laws on the Ministry of Health or related websites. [4] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version has no information about laws regarding antibiotic use in animals. [5]

[1] World Health Organisation (WHO). "Library of National Action Plans." [https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/]. Accessed 02 March 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-

eng.pdf?sequence=1]. Accessed 02 March 2021

[3] Republic of South Sudan. Ministry of Health of Government of Southern Sudan. "Southern Sudan Pharmacy Protocol." [https://digicollections.net/medicinedocs/documents/s21012en/s21012en.pdf]. Accessed 02 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss/]. Accessed 02 March 2021

[5] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 02 March 2021

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has a single law, plan, or strategy document on zoonotic diseases, although there are some planning documents for addressing them. According to the 15-20 October 2017 World Health Organisation Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), comprehensive guidelines, reporting form, and surveillance systems are in place for the detection and reporting of zoonotic diseases, namely the Animal Epidemiology Information System. The JEE also cites the "Livestock Disease Outbreak Reporting and Investigation Guideline, of the Directorate of veterinary services, written by Dr. Nimaya Kenyi Mogga in 2008, but there is no publicly available copy of the document. [1] The JEE cites the "Assessment Report Community Based Animal Health Services, of Sudan Productive Capacity Recovery Programme (SPCRP)," of 2009, which is an assessment of the capacity of South Sudan in addressing veterinary issues. SPCR in South Sudan focuses on building grassroots capacity in managing of animal diseases and other veterinary issues, supported by multiple entities in the international community (FAO, European Commission) and the South Sudanese Ministry of Livestock, Animal Resources and Fisheries. The report addresses multiple animal diseases particularly Rinderpest, but does not use the word zoonoses nor does it indicate the creation of a comprehensive policy, document, or plan to address zoonotic diseases. [1,2] An example of efforts to develop such a policy is the Progressive Control Pathway, an initiative of South Sudan's Ministry of Livestock, Animal Resources and Fisheries with Food and Agriculture Organisation of the United Nations (FAO) to develop surveillance, data collection and analysis of foot-and-mouth outbreaks starting in March 2017. [3] Selected neglected tropical diseases are included under the section of Neglected Tropical Diseases on the Ministry of Health website. [4] According to the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020 many ministries including the Ministry of Health, the Ministry of Livestock, Animal Resources and Fisheries and the Ministry of Environment and Wildlife Conservation are working on zoonotic diseases. However, the document does not mention a plan for zoonotic diseases specifically. [5] There are no current websites for the Ministry of Livestock, Animal Resources and Fisheries or the Ministry of Wildlife Conservation and Tourism. There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 02 March 2021.

[2] Food and Agriculture Organisation of the United Nations (FAO). January 2009. "Assessment Report: Community Based Animal Health Services of Sudan's Productive Capacity Recovery Programme (SPCRP) South Sudan."

[http://www.fao.org/ag/againfo/resources/documents/AH/Sudan_Assessment_Report.pdf]. Accessed 02 March 2021.

[3] Food and Agriculture Organisation of the United Nations (FAO). 15 March 2017. "FAO and Ministry of Livestock, Animal Resources and Fisheries launch initiative to implement a Foot-and-Mouth Disease Progressive Control Pathway."

[<http://www.fao.org/africa/news/detail-news/en/c/852917/>]. Accessed 02 March 2021.

[4] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 02 March 2021.

[5] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 02 March 2021

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 02 March 2021

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of national legislation, plans or equivalent strategy document(s) which includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. There is no evidence of a plan or strategy for zoonoses currently available although certain neglected tropical diseases are included under Neglected Tropical Diseases in the Preventive Health Services section under the Ministry of Health. However, there is no plan or strategy for risk identification and reduction for zoonotic disease spillover events from animals to humans.[1] According to the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020 many ministries including the Ministry of Health, the Ministry of Livestock, Animal Resources and Fisheries and the Ministry of Environment and Wildlife Conservation are working on zoonotic diseases. However, the document does not mention a plan for zoonotic diseases specifically or a spillover of these diseases from animals to humans. [2] There are no current websites for the Ministry of Livestock, Animal Resources and Fisheries or the Ministry of Wildlife Conservation and Tourism. There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [3]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 02 March 2021.

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 02 March 2021

[3] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 02 March 2021

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has a national law, plan, or strategy document for surveilling and controlling multiple diseases of public health concern, although there are some planning documents for addressing zoonoses. According to the 15-20 October 2017 World Health Organisation Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), comprehensive guidelines, reporting form, and surveillance systems are in place for the detection and reporting of zoonotic diseases, namely the Animal Epidemiology Information System. The JEE also cites the "Livestock Disease Outbreak Reporting and Investigation Guideline, of the Directorate of veterinary services, written by Dr. Nimaya Kenyi Mogga in 2008, but there is no publicly available copy of the document. [1] The JEE cites the "Assessment Report Community Based Animal Health Services, of Sudan Productive Capacity Recovery Programme (SPCRP)," of 2009, which is an assessment of the capacity of South Sudan in addressing veterinary issues. SPCR in South Sudan focuses on building grassroots capacity in managing of animal and other veterinary issues, supported by multiple entities in the international community (FAO, European Commission) and the South Sudanese Ministry of Livestock, Animal Resources and Fisheries. The report addresses multiple animal diseases particularly Rinderpest, but does not indicate the creation of a comprehensive policy, document, or plan to multiple zoonotic pathogens of public health concern nor does it utilize "zoonotic" to describe the animal diseases. [1,2] A more recent example of efforts to develop such a policy is the Progressive Control Pathway, an initiative of South Sudan's Ministry of Livestock, Animal Resources and Fisheries with Food and Agriculture Organisation of the United Nations (FAO) to develop surveillance, data collection and analysis of foot-and-mouth outbreaks starting in March 2017, but it does not mention any other zoonotic pathogens. [3] There is no mention of zoonoses on the Ministry of Health website. [4] According to the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020 under the Ministry of Health, the Ministry of Livestock, Animal Resources and Fisheries and the Ministry of Environment and Wildlife Conservation working on zoonotic diseases. However, the document does not mention a plan for zoonotic diseases specifically. [5] There are no current websites for the Ministry of Livestock, Animal Resources and Fisheries or the Ministry of Wildlife Conservation and Tourism. There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 02 March 2021

[2] Food and Agriculture Organisation of the United Nations (FAO). January 2009. "Assessment Report: Community Based Animal Health Services of Sudan's Productive Capacity Recovery Programme (SPCRP) South Sudan." [http://www.fao.org/ag/againfo/resources/documents/AH/Sudan_Assessment_Report.pdf]. Accessed 02 March 2021.

[3] Food and Agriculture Organisation of the United Nations (FAO). 15 March 2017. "FAO and Ministry of Livestock, Animal Resources and Fisheries launch initiative to implement a Foot-and-Mouth Disease Progressive Control Pathway." [<http://www.fao.org/africa/news/detail-news/en/c/852917/>]. Accessed 02 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 02 March 2021.

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 02 March 2021

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 02 March 2021.

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 evidence that there is a dedicated department, agency or similar unit for zoonotic disease that functions across ministries in the government of the Republic of South Sudan. While the 15-20 October 2017 World Health Organisation Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE) discusses zoonoses in the context of a Ministry of Livestock, Animal Resources and Fisheries draft animal health policy and strategic plan (2012-2016), but does not mention a dedicated entity for zoonotic disease. There is no publicly available version of the draft animal health policy and strategic plan from 2012-2016, nor an updated version of the document. [1] There is no mention of such an entity in the "Assessment Report Community Based Animal Health Services, of Sudan Productive Capacity Recovery Programme (SPCRP)," of 2009, which is an assessment of the capacity of South Sudan in addressing veterinary issues. This document also does not describe animal diseases as zoonoses specifically. [2] The March 2017 Food and Agriculture Organisation of the United Nations (FAO) article regarding the joint initiative with the Ministry of Livestock, Animal Resources and Fisheries of South Sudan on Foot-and-Mouth Disease does not discuss such an entity. [3] According to the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020 many ministries are involved in addressing diseases and coordinate with the Ministry of Health, with the Ministry of Livestock, Animal Resources and Fisheries and the Ministry of Environment and Wildlife Conservation working on zoonotic diseases. However, the document does not mention an entity specifically for zoonotic disease. [4] There is no information on zoonoses on the Ministry of Health of the Republic of South Sudan website. [5] There are no current websites for the Ministry of Livestock, Animal Resources and Fisheries or the Ministry of Wildlife Conservation and Tourism. There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 02 March 2021

[2] Food and Agriculture Organisation of the United Nations (FAO). January 2009. "Assessment Report: Community Based Animal Health Services of Sudan's Productive Capacity Recovery Programme (SPCRP) South Sudan." [http://www.fao.org/ag/againfo/resources/documents/AH/Sudan_Assessment_Report.pdf]. Accessed 02 March 2021

[3] Food and Agriculture Organisation of the United Nations (FAO). 15 March 2017. "FAO and Ministry of Livestock, Animal Resources and Fisheries launch initiative to implement a Foot-and-Mouth Disease Progressive Control Pathway." [<http://www.fao.org/africa/news/detail-news/en/c/852917/>]. Accessed 02 March 2021.

[4] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 02 March 2021.

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 02 March 2021.

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 02 March 2021

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15-20 October 2017, does not mention any national mechanism for the owners of livestock specifically to conduct and report on disease surveillance to a central government agency. The JEE mentions that the Ministry of Livestock, Animal Resources, and Fisheries has an animal health policy and strategic plan (2012-2016), but the text of this document is not available and there is no current website for the Ministry. [1,2] There is no information about such a national mechanism on the Ministry of Health and related websites. [3,4] Surveillance systems are in place for reporting priority zoonotic diseases and animal health through the Animal Epidemiology Disease Information System, including outbreak guidelines and reporting forms. However, "the country is yet to establish a One Health policy, and currently the human and animal health sectors are not coordinated with interactions and operations happening on an ad hoc basis." [1] There is limited information available regarding this information system. It is not mentioned on the Food and Agriculture Organisation of the United Nations (FAO) profile of South Sudan. [5] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 02 March 2021.

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 02 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 02 March 2021.

[4] South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 02 March 2021

[5] Food and Agriculture Organisation of the United Nations (FAO). "FAO in South Sudan." [<http://www.fao.org/south-sudan/programmes-and-projects/project-list/en/>]. Accessed 02 March 2021.

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 02 March 2021.

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 insufficient evidence that South Sudan has laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15-20 October 2017, does not mention any national mechanism for the owners of livestock to conduct and report on disease surveillance to a central government agency. It does not mention the confidentiality of livestock owners. The JEE mentions that the Ministry of Livestock, Animal Resources, and Fisheries has an animal health policy and strategic plan (2012-2016), but the text of this document is not available and there is no current website for the Ministry. There is no relevant law listed on the Government of the Republic of South Sudan website. [1,2] There is no information about such a national reporting mechanism or about the protection of confidentiality of livestock owners on the Ministry of Health and related websites.[3,4] Surveillance systems are in place for

reporting priority zoonotic diseases and animal health through the Animal Epidemiology Disease Information System, including outbreak guidelines and reporting forms. However, "the country is yet to establish a One Health policy, and currently the human and animal health sectors are not coordinated with interactions and operations happening on an ad hoc basis." [1] There is limited information available regarding this information system. It is not mentioned on the Food and Agriculture Organisation of the United Nations (FAO) profile of South Sudan. [5] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021.

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 03 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 03 March 2021.

[4] South Sudan Health Information Dashboard. "Document Library: Policy Documents."

[<https://www.southsudanhealth.info/library.php>]. Accessed 03 March 2021.

[5] Food and Agriculture Organisation of the United Nations (FAO). "FAO in South Sudan." [<http://www.fao.org/south-sudan/programmes-and-projects/project-list/en/>]. Accessed 03 March 2021

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021

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 South Sudan conducts surveillance of zoonotic disease in wildlife. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15-20 October 2017, does not mention the surveillance of zoonotic disease in wildlife specifically. The JEE mentions that the Ministry of Livestock, Animal Resources, and Fisheries has an animal health policy and strategic plan (2012-2016), but the text of this document is not available and there is no current website for the Ministry. [1,2] There is no information on the Ministry of Health and related websites. [3,4] Also, "the country is yet to establish a One Health policy, and currently the human and animal health sectors are not coordinated with interactions and operations happening on an ad hoc basis." [1] An example of this ad hoc work is reported in a 25 January 2018 WHO article, describing a multi-sectoral taskforce (Ministries of Health, Livestock, Animal Resources and Fisheries, Environment, Wildlife, Information, Defence, and Trade and WHO, OIE, FAO, MSF, USAID, EU) created to coordinate surveillance, investigation, and response activities to respond to a viral haemorrhagic fever (VHF) outbreak in Thonabutkok village, Yirol East Country on 28 December 2017. This taskforce was prompted subsequent to reports of human deaths, deaths of domestic animals and wild birds in the region. A WHO Epidemiologist, Dr. Joseph Wamala noted that two months prior there were multiple reports of animal abortions and deaths, which was a "missed opportunity for timely initiation of disease control at the animal-human interface." The taskforce developed a plan to increase community surveillance to detect and report the onset of zoonotic disease outbreaks. [5] However, there is no evidence such wildlife surveillance is institutionalized. The Ministry of Environment and Forestry of South Sudan website could not be accessed at the time of research [6] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not

discuss this topic. [7]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021.

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 03 March 2021

[3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 03 March 2021

[4] South Sudan Health Information Dashboard. "Document Library: Policy Documents."

[<https://www.southsudanhealth.info/library.php>]. Accessed 03 March 2021.

[5] World Health Organisation (WHO). 25 January 2018. "WHO promotes one-health approach to enhance response to zoonoses in South Sudan." [<https://afro.who.int/news/who-promotes-one-health-approach-enhance-response-zoonoses-south-sudan>]. Accessed 03 March 2021

[6] Ministry of Environment and Forestry of South Sudan. [<http://www.mef-ssd.org/>]. Accessed 03 March 2021.

[7] Republic of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021

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: 0.93

2017

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 25.03

2017

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 insufficient evidence that South Sudan has a national plan on zoonotic disease and it is unclear whether there are mechanisms for working with the private sector in controlling or responding to zoonoses through the ad hoc entities created to address outbreaks. According to the 15-20 October 2017 World Health Organisation Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), comprehensive guidelines, reporting form, and surveillance systems are in place for the detection and reporting of zoonotic diseases, namely the Animal Epidemiology Information System. The JEE also cites the "Livestock Disease Outbreak Reporting and Investigation Guideline, of the Directorate of veterinary services, written by Dr. Nimaya Kenyi Mogga in 2008, but there is no publicly available copy of the document. [1] There is evidence that the South Sudanese government collaborates across ministries and with international organisations, but not with the South Sudanese private sector per se. For example, in efforts to control the spread of Foot-and-Mouth disease, the Ministry of Livestock, Animal Resources and Fisheries of South Sudan partnered with Food and Agriculture Organisation of the United Nations (FAO) to create an initiative called Progressive Control Pathway, for "surveillance, data collection and analysis of food-and-mouth outbreaks in rural and border areas according to international standards." [2] There is no mention of collaboration with private sector for addressing zoonotic disease or otherwise in the Ministry of Health's "South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases." [3] There is no mention of collaboration with private sector on the Ministry of Health website. [4] The Ministry of Health Policy Framework 2013-2016 published February 2013 mentions that improving and creating established mechanisms to create public private partnerships and to streamline collaboration between the public and private healthcare providers, but does not mention such a mechanism currently in place for zoonotic or other types of diseases. [5] The Ministry of Health Sector Development Plan 2012-2016 similarly discusses increased collaboration between the public and private sector, but does not discuss a current mechanism for zoonotic or other types of diseases. [6] The JEE mentions that the Ministry of Livestock, Animal Resources, and Fisheries has an animal health policy and strategic plan (2012-2016), but the text of this document is not available and there is no current website for the Ministry. [1,7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021

[2] Food and Agriculture Organisation of the United Nations (FAO). 15 March 2017. "FAO and Ministry of Livestock, Animal Resources and Fisheries launch initiative to implement a Foot-and-Mouth Disease Progressive Control Pathway." [<http://www.fao.org/africa/news/detail-news/en/c/852917/>]. Accessed 03 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [<https://www.malariaconsortium.org/gallery-file/06210257->

90/south_sudan_master_plan_20162020.pdf]. Accessed 03 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss]. Accessed 03 March 2021

[5] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021

[6] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 03 March 2021.

[7] Government of the Republic of South Sudan. [http://www.goss-online.org/]. Accessed 03 March 2021.

[8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 03 March 2021

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that South Sudan has in place a record, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, says the biosafety and biosecurity capacities of South Sudan are lacking. The JEE notes "there is no mechanism for monitoring and developing a record and inventory of pathogens within facilities that process dangerous and toxins." [1] There is no mention of pathogen and toxin storage facilities on the Ministry of Health of South Sudan website. [2] There is no mention of this issue on the February 2013, Ministry of Health Policy Framework 2013-2016. [3] There is no mention of this issue in the Ministry of Health's Health Sector Development Plan 2012-2016. [4] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [5] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is currently no website for the Ministry of Agriculture and Forestry, although an archived version is available. The archived version of the website does not discuss this topic. [6] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted any reports to BWC. [7] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party[8]

- [1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021
- [2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 03 March 2021.
- [3] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021
- [4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 03 March 2021.
- [5] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaffairs.html>]. Accessed 03 March 2021
- [6] Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021
- [7] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 03 March 2021
- [8] VERTIC. 'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 03 March 2021

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 insufficient evidence that South Sudan has in place legislation and/or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, mentions that there is a draft of a Laboratory Safety Manual that is relatively comprehensive and if implemented would increase capacity in biosafety and biosecurity. [1] However, the draft Laboratory Safety Manual is not publicly available. There is no mention of any policy or the draft Laboratory Safety Manual on the Ministry of Health or related websites. [2] There is no mention of this issue on the February 2013, Ministry of Health Policy Framework 2013-2016. [3] There is no mention of this issue in the Ministry of Health's Health Sector Development Plan 2012-2016. [4] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [5] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [6] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [7] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." Since South Sudan is not a State Party,

the country has not submitted any reports to BWC [8] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[9]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 03 March 2021.

[3] Republic Of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 03 March 2021.

[5] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 03 March 2021.

[6] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 03 March 2021.

[7] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021

[8] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 03 March 2021

[9] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 03 March 2021

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

It is unclear if South Sudan has an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, discusses a draft Laboratory Safety Manual that is relatively comprehensive and it is implied this is managed by the Ministry of Health, although the managing body of this document is not clear. [1] However, the draft Laboratory Safety Manual is not publicly available. There is no mention of any policy or the draft Laboratory Safety Manual on the Ministry of Health or related websites. [2] Furthermore, there is no mention of this in either the February 2013, Ministry of Health Policy Framework 2013-2016 or the Ministry of Health's Health Sector Development Plan 2012-2016. [3,4] However, as of 15 October 2018, there is evidence that South Sudan's Ministry of Health has increased their ability to test for Ebola implying that as the agency conducting testing on pathogens, the Ministry of Health is the agency responsible for managing biosecurity and biosafety issues. Although this is not expressly mentioned. [5] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [6] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries.

[7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted any reports to BWC [9] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021

[2] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 03 March 2021

[3] Republic of South Sudan.Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 03 March 2021

[5] World Health Organisation (WHO). 15 October 2018. "The Ministry of Health of South Sudan conducts its first ever diagnostic test for Ebola." [<https://afro.who.int/news/ministry-health-south-sudan-successfully-conducts-its-first-ever-diagnostic-test-ebola>]. Accessed 03 March 2021

[6] Government of the Republic of South Sudan. "SPLA and Veteran Affairs."

[<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 03 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 03 March 2021

[8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021

[9] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 03 March 2021

[10] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 03 March 2021

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 insufficient publicly available evidence that South Sudan has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, says the biosafety and biosecurity capacities of South Sudan are generally lacking. The JEE notes that "there is no mechanism for monitoring and developing a record and inventory of pathogens within facilities that process dangerous and toxins." [1]

There is no mention of pathogen and toxin storage facilities or consolidation of such items on the Ministry of Health website. [2] There is no mention of this issue on the February 2013, Ministry of Health Policy Framework 2013-2016. [3] There is no mention of this issue in the Ministry of Health's Health Sector Development Plan 2012-2016. [4] According to a 6 July 2018 WHO article, South Sudan has increased their capacity to test and report results of dangerous specimens within their laboratories, but it does not mention anything about consolidation of those specimens. [5] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [6] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." Since South Sudan is not a State Party the country has not submitted any reports to BWC.[9] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 03 March 2021.

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss]. Accessed 03 March 2021

[3] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021

[4] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 03 March 2021

[5] World Health Organisation (WHO). 6 July 2018. "WHO strengthened the National Public Health Laboratory to safely manage infectious specimens in South Sudan." [https://afro.who.int/news/who-strengthened-national-public-health-laboratory-safely-manage-infectious-specimens-south]. Accessed 03 March 2021

[6] Government of the Republic of South Sudan. "SPLA and Veteran Affairs."

[https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html]. Accessed 03 March 2021

[7] Government of the Republic of South Sudan. [http://www.goss-online.org/]. Accessed 03 March 2021

[8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 03 March 2021

[9] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 03 March 2021

[10] VERTIC.'South Sudan'. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/] Accessed 03 March 2021

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that South Sudan has in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for Ebola or Anthrax. Although News articles on South Sudan suggest that there are plans to set up PCR testing for Ebola at the National Public Health Laboratory, there is no evidence that this has been implemented. 'In October 2019, South Sudan announced that 'it will be establishing molecular testing capacities for influenza and other high threat infectious diseases like Ebola virus disease (EVD), yellow fever, Marburg virus disease (MVD) and rift valley fever (RVF)'. 'By the installation of the PCR machine, South Sudan is able to perform confirmatory testing for influenza, EVD and other high threat diseases, thus putting the country at par with other countries in the region'. [1] There is no further evidence under the Ministry of Health [2] The National Public Health Laboratory website could not be accessed at the time of research. There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [3] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [4] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [5]

[1] Xinhuanet. 20 October 2019. 'South Sudan to establish molecular testing capacities for infectious diseases.' [http://www.xinhuanet.com/english/2019-10/21/c_138488484.htm] Accessed 03 May 2021

[2] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss]. Accessed 03 March 2021

[3] Government of the Republic of South Sudan. "SPLA and Veteran Affairs."

[https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html]. Accessed 03 March 2021

[4] Government of the Republic of South Sudan. [http://www.goss-online.org/]. Accessed 03 March 2021

[5] Republic of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan.

[https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 03 March 2021

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan requires biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, components of biosafety training are included in the Integrated Disease Surveillance and Response (IDSR) training programme. [1] Training is mentioned as a suggested response to handling the current measles outbreak in the latest IDSR weekly report for South Sudan, but there is no evidence of a standardized required approach. [2] There are plans for establishing training on biological risk management for all regions of the country, but it has yet to be implemented. [1] According to the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020, published 2015-2016, training for health professionals is a goal for addressing such diseases, but has not been successfully implemented yet. [3] Biosecurity

training is not mentioned in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 or the Policy Framework 2013-2016. [4,5] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [6] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Because South Sudan is not a State Party, the country has not submitted reports to BWC.[9] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021.

[2] World Health Organisation (WHO). 4-10 February 2019. "South Sudan: Integrated Disease Surveillance and Response (IDSR) Epidemiological Update W06 2019 (Feb 04, 2018-Feb 10, 2019)." [https://www.afro.who.int/sites/default/files/2019-02/South%20Sudan%20IDSR%20Bulletin%20-%20W06%202019%20Feb%2004-Feb%2010_1.5%20%281%29.pdf] Accessed 03 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 03 March 2021

[4] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 03 March 2021

[6] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 03 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 03 March 2021

[8] Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021.

[9] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 03 March 2021

[10] VERTIC. 'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 03 March 2021

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 insufficient evidence to suggest that South Sudan has 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. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, does not mention any background checks of any kind for health workers. [1] It does mention the South Sudan National Strategic Plan for Human Resources for Health 2011-2015, but there is no mention of background checks in this document nor an updated version of this planning document. [1,2] There is no mention of such checks in the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020, published 2015-2016. [3] Background checks are not mentioned in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 or the Policy Framework 2013-2016. [4,5] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [6] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted reports to BWC [9] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 March 2021

[2] ResearchGate. October 2015. "Ministry of Health of South Sudan National Strategic Plan for Human Resources for Health 2011-2015."

[https://www.researchgate.net/publication/283153705_South_Sudan_National_Strategic_Plan_for_Human_Resources_for_Health_2011-2015]. Accessed 03 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 03 March 2021

[4] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 03 March 2021.

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%20

2012-16.pdf]. Accessed 03 March 2021

[6] Government of the Republic of South Sudan. "SPLA and Veteran Affairs."

[<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>].

Accessed 03 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 03 March 2021

[8] Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 03 March 2021

[9] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 03 March 2021

[10] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 03 March 2021

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 on South Sudan's national regulations on the safe and secure transport of infectious substances (Categories A and B). The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017 states, "triple packaging for category A and B infectious substances [is] applied in transporting samples from the field to [the] National public Health laboratory". [1] The World Health Organisation (WHO) published an article 6 July 2018, stating that South Sudan's National Public Health Laboratory has improved their ability to safely handle infectious specimens. However, this article does not mention transport of such specimens. [2] There is no information confirming this on the Ministry of Health (MoH) website, the MoH Health Sector Development Plan (2012-2016) or the National Health Policy 2016-2026. [3,4,5] The transport of samples is mentioned the MoH Policy Framework, but not does not elaborate on category A or B infectious substances. [6] This issue is not discussed in the South Sudan Master Plan for Neglected Tropical Diseases. [7] There is no current website for the Ministry of Transport of South Sudan, but there is limited information on transport on the Gurtong (part of the Sowing Seeds of Peace Initiative) website. This information does not include transport of infectious diseases. [8] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [9] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [10] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [11] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted any reports [12] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[13]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4->

eng.pdf?sequence=1]. Accessed 04 March 2021

[2] World Health Organisation (WHO). 6 July 2018. "WHO strengthened the National Public Health Laboratory to safely manage infectious specimens in South Sudan." [https://www.afro.who.int/news/who-strengthened-national-public-health-laboratory-safely-manage-infectious-specimens-south]. Accessed 04 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss]. Accessed 04 March 2021

[4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021.

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021

[6] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021

[7] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 04 March 2021

[8] Gurtong: Bringing South Sudanese Together. "Transport and Communication." [http://www.gurtong.net/Travel/Transport/tabid/93/Default.aspx]. Accessed 04 March 2021.

[9] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html]. Accessed 04 March 2021

[10] Government of the Republic of South Sudan. [http://www.goss-online.org/]. Accessed 04 March 2021

[11] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 04 March 2021.

[12] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021

[13] VERTIC. 'South Sudan'. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/] Accessed 04 March 2021

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 insufficient evidence that South Sudan has a national legislation, regulation, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, does not mention any policy regarding cross-border transfer of dangerous pathogens, toxins, and pathogens with pandemic potential. The JEE notes that South Sudan is need of developing cross-border agreements with neighbouring countries. [1] The World Health Organisation (WHO) 6 July 2018 article, "WHO

strengthened the National Public Health Laboratory to safely manage infectious specimens in South Sudan." discusses South Sudan's increased ability to safely test specimens such as Ebola, but it does not discuss cross-border transfer. [2] There is no information on this topic on the Ministry of Health (MoH) website, the MoH Health Sector Development Plan (2012-2016) or the National Health Policy 2016-2026. [3,4,5] The transport of samples is mentioned the MoH Policy Framework, but not cross-border transport specifically. [6] This issue is not discussed in the South Sudan Master Plan for Neglected Tropical Diseases. [7] There is no current website for the Ministry of Transport of South Sudan, but there is limited information on transport on the Gurtong (part of the Sowing Seeds of Peace Initiative) website. This information does not include transport of infectious diseases. [8] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [9] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [10] There is currently no website for the Ministry of Commerce, Industry and Investment and there is no relevant information on the ministry's Facebook page. [11] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [12] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted reports to BWC.[13] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[14]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2021

[2] World Health Organisation (WHO). 6 July 2018. "WHO strengthened the National Public Health Laboratory to safely manage infectious specimens in South Sudan." [<https://www.afro.who.int/news/who-strengthened-national-public-health-laboratory-safely-manage-infectious-specimens-south>]. Accessed 04 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 04 March 2021

[4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021

[6] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021

[7] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 04 March 2021

[8] Gurtong: Bringing South Sudanese Together. "Transport and Communication." [<http://www.gurtong.net/Travel/Transport/tabid/93/Default.aspx>]. Accessed 04 March 2021

[9] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 04 March 2021

[10] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 04 March 2021

[11] Facebook. "Republic of South Sudan, Ministry of Trade & Industry."

[<https://www.facebook.com/pages/category/Government-Organization/Republic-of-South-Sudan-Ministry-of-Trade-Industry-127047447441025/>]. Accessed 04 March 2021

[12] Republic of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 04 March 2021

[13] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021

[14] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 04 March 2021

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 South Sudan has in place national biosafety legislation and/or regulations. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, says the biosafety and biosecurity capacities of South Sudan are lacking. "South Sudan does not have biosafety and biosecurity systems for human, animal and agriculture facilities in place and there are no national guidelines or an oversight mechanism in the country." The JEE does mention there is a draft manual on laboratory biosafety. [1] However, the draft Laboratory Safety Manual is not publicly available. There is no mention of any policy or the draft Laboratory Safety Manual on the Ministry of Health or related websites. [2] There is no mention of this issue on the February 2013, Ministry of Health Policy Framework 2013-2016. [3] There is no mention of this issue in the Ministry of Health's Health Sector Development Plan 2012-2016 or the National Health Policy 2016-2026. [4,5] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [6] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Because South Sudan is not a State Party, the country has not submitted reports to BWC.[9] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 04 March 2021

[3] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framew]

ork%202012-16.pdf]. Accessed 04 March 2021

[4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021.

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021

[6] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html]. Accessed 04 March 2021

[7] Government of the Republic of South Sudan. [http://www.goss-online.org/]. Accessed 04 March 2021

[8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 04 March 2021

[9] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021

[10] VERTIC.'South Sudan'. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/] Accessed 04 March 2021

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

It is unclear if South Sudan has an established agency (or agencies) responsible for the enforcement of biosafety legislation and regulations. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, discusses a draft Laboratory Safety Manual that is relatively comprehensive and it is implied this is managed by the Ministry of Health, although the managing body of this document is not clear. [1] However, the draft Laboratory Safety Manual is not publicly available. There is no mention of any policy or the draft Laboratory Safety Manual on the Ministry of Health or related websites. [2] Furthermore, there is no mention of this in either the February 2013, Ministry of Health Policy Framework 2013-2016, the Ministry of Health's Health Sector Development Plan 2012-2016 or the National Health Policy 2016-2026 . [3,4,5] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [6] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Because South Sudan is not a State Party, the country has not submitted reports to BWC[9] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 04 March 2021

- [2] Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 04 March 2021
- [3] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021
- [4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021
- [5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021
- [6] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 04 March 2021.
- [7] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 04 March 2021
- [8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 04 March 2021
- [9] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021
- [10] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 04 March 2021

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan requires biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, components of biosafety training are included in the Integrated Disease Surveillance and Response (IDSR) training programme. [1] Training is mentioned as a suggested response to handling the current measles outbreak in the latest IDSR weekly report for South Sudan, but there is no evidence of a standardized required approach. [2] There are plans for establishing training on biological risk management for all regions of the country, but it has yet to be implemented. [1] According to the South Sudan Master Plan for Neglected Tropical Diseases 2016-2020, published 2015-2016, training for health professionals is a goal for addressing such diseases, but has not been successfully implemented yet. [3] Biosafety training is not mentioned in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016, the Policy Framework 2013-2016 or the National Health Policy 2016-2026. [4,5,6] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [7] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [8] There is currently no website for the Ministry of Agriculture

and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [9] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted reports to BWC. [10] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[11]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2021

[2] World Health Organisation (WHO). 4-10 February 2019. "South Sudan: Integrated Disease Surveillance and Response (IDSR) Epidemiological Update W06 2019 (Feb 04, 2018-Feb 10, 2019)." [https://www.afro.who.int/sites/default/files/2019-02/South%20Sudan%20IDSR%20Bulletin%20-%20W06%202019%20Feb%2004-Feb%2010_1.5%20%281%29.pdf] Accessed 04 March 2021

[3] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 04 March 2021

[4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021

[5] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021

[6] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021

[7] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 04 March 2021

[8] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 04 March 2021

[9] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 04 March 2021

[10] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021

[11] VERTIC. 'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 04 March 2021

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that South Sudan has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, and/or other dual use research. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, describes the biosafety and biosecurity capacities of South Sudan to be quite low and to that effect does not mention any research regarding dangerous pathogens, toxins or pathogens with pandemic potential nor any dual use research. [1] There is no evidence on the South Sudan WHO profile regarding dual use research. [2] There is no relevant information on the Ministry of Health (MoH) or related websites. [3] Dual use research is not mentioned in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 or the Policy Framework 2013-2016 or in the National Health Policy 2016-2026 [4,5,6] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [7] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [8] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [9] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Since South Sudan is not a State Party, the country has not submitted reports to BWC [10] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[11]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2021

[2] World Health Organisation (WHO). "South Sudan." [<https://www.afro.who.int/countries/south-sudan>]. Accessed 04 March 2021

[3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 04 March 2021

[4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021

[5] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021

[6] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021

- [7] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html]. Accessed 04 March 2021
- [8] Government of the Republic of South Sudan. [http://www.goss-online.org/]. Accessed 04 March 2021
- [9] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 04 March 2021.
- [10] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021
- [11] VERTIC.'South Sudan'. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/] Accessed 04 March 2021

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that South Sudan has a national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, describes the biosafety and biosecurity capacities of South Sudan to be quite low and to that effect does not mention any policy regarding research regarding dangerous pathogens, toxins or pathogens with pandemic potential nor any dual use research. [1] There is no evidence on the South Sudan WHO profile regarding a policy for dual use research or research of dangerous pathogens, toxins, or pathogens with pandemic potential. [2] There is no relevant information on the Ministry of Health (MoH) or related websites. [3] Dual use research is not mentioned in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016, the Policy Framework 2013-2016 or the National Health Policy for 2016-2026 [4,5,6] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [7] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [8] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [9] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Because South Sudan is not a State Party, the country has not submitted reports to BWC. [10] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[11]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 04 March 2021

[2] World Health Organisation (WHO). "South Sudan." [https://www.afro.who.int/countries/south-sudan]. Accessed 04 March 2021

[3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss]. Accessed 04 March 2021

[4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%20

2012-16.pdf]. Accessed 04 March 2021

[5] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021

[6] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [

https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021

[7] Government of the Republic of South Sudan. "SPLA and Veteran Affairs."

[<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 04 March 2021

[8] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 04 March 2021

[9] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 04 March 2021.

[10] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021

[11] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 04 March 2021

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence indicating if there is an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, describes the biosafety and biosecurity capacities of South Sudan to be quite low and to that effect does not mention any research regarding dangerous pathogens, toxins or pathogens with pandemic potential nor any dual use research nor the agency responsible for them. [1] There is no evidence on the South Sudan WHO profile regarding dual use research or the agency responsible for overseeing them or other dangerous pathogens or toxins. [2] There is no relevant information on the Ministry of Health (MoH) or related websites. [3] Dual use research is not mentioned in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 or the Policy Framework 2013-2016 or the National Health Policy 2016-2026. [4,5,6] There is currently no website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [7] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [8] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [9] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Because South Sudan is not a State Party, the country has not submitted reports to BWC. [10] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[11]

- [1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2021
- [2] World Health Organisation (WHO). "South Sudan." [<https://www.afro.who.int/countries/south-sudan>]. Accessed 04 March 2021
- [3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 04 March 2021
- [4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021
- [5] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021
- [6] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021
- [7] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 04 March 2021
- [8] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 04 March 2021
- [9] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 04 March 2021.
- [10] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021
- [11] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 04 March 2021

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 public evidence that South Sudan has a national legislation, regulation, policy, or other guidance, requiring the screening of synthesized Deoxy-Ribonucleic Acid (DNA) before it is sold. While South Sudan became the 194th party to the Convention of Biological Diversity (CBD) on 17 February 2014, there is no evidence that South Sudan has passed any legislation to implement the CBD, such as genetically modified organisms. [1] There is no mention of synthesized or other DNA in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15 to 20 October 2017. [2] There is no relevant information on the Ministry of Health (MoH) website or in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 ,the Policy Framework 2013-2016 or the National Health Policy 2016-2026. [3,4,5,6] This issue is not discussed in the South Sudan Master Plan for Neglected Tropical Diseases 2016 to 2020. [7] There is no current website for the Ministry of Transport of South Sudan, but there is limited information on transport the Gurtong (part of the Sowing Seeds of Peace Initiative) website. This information does not include information about synthesized DNA. [8] There is currently no website for the Ministry of Defence and Veterans Affairs for

South Sudan, but there is a link to an archived version of the website. [9] South Sudan has a Ministry of Information, Communication Technology and Postal Services, but there is no current website. There is no website for the Ministry of Livestock, Animal Resources and Fisheries. [10] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [11] South Sudan is not a State Party to the Biological Weapons Commission (BWC), which has a yearly reporting mechanism called the "Confidence Building Measure Return (CBM)." The CBM includes the level, location, floor area of the laboratory, types of pathogens stored and processed, and the organizational structure of Biosafety Level (BSL) facilities. Because South Sudan is not a State Party, the country has not submitted any reports to BWC [12] No evidence of a record was found on the Verification Research, Training and Information Centre (VERTIC) database, where South Sudan is listed as a non-State party.[13]

- [1] United Nations. 7 March 2014. "Press Release: South Sudan becomes 194th Party to the Convention on Biological Diversity." [<https://www.cbd.int/doc/press/2014/pr-2014-03-07-cbd-south-sudan-en.pdf>]. Accessed 04 March 2021.
- [2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2021
- [3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>] Accessed 04 March 2021.
- [4] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 04 March 2021
- [5] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 04 March 2021
- [6] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 04 March 2021
- [7] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 04 March 2021
- [8] Gurtong: Bringing South Sudanese Together. "Transport and Communication." [<http://www.gurtong.net/Travel/Transport/tabid/93/Default.aspx>]. Accessed 04 March 2021
- [9] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 04 March 2021
- [10] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 04 March 2021
- [11] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 04 March 2021.
- [12] United Nations Biological Weapons Convention (BWC) Electronic Confidence Building Measures Portal. "Submissions Made by States Parties by Year." [https://bwc-ecbm.unog.ch/?field_form_year_tid=548]. Accessed 04 March 2021
- [13] VERTIC.'South Sudan'. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/s/>] Accessed 04 March 2021

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 evidence that South Sudan's national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests but there is not publicly available evidence regarding the specific tests. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, the laboratory services of the country are housed in the Department of Diagnostic Services

within the Directorate of Medical Services of the Ministry of Health (MoH). The only national public health laboratory (NPHL), which is the main reference laboratory, "is able to perform tests for five out of 10 core tests, including HIV, TB, malaria, measles, and cholera." The JEE does not specify which tests are conducted for which diseases. It also notes that outside of the main laboratory, samples must be referred to the national or international level. [1] There is no website for the NPHL. The Diagnostic Services on the Ministry of Health (MoH) website includes no information. [2] A more recent WHO article, published 6 July 2018 reiterates South Sudan's ability to perform tests for 5 out of 10 core tests including HIV, TB, malaria, measles, meningitis, and cholera. However it does not list the specific kinds of tests performed for each disease. [3] There is no further evidence on the website of the Ministry of Health. [4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 March 2020

[2] Ministry of Health of the Republic of South Sudan. "Diagnostic Services." [<https://moh.gov.ss/index.php#>]. Accessed 04 March 2021.

[3] World Health Organisation (WHO). 6 July 2018. "WHO strengthened the National Public Health Laboratory to safely manage infectious specimens in South Sudan." [<https://afro.who.int/news/who-strengthened-national-public-health-laboratory-safely-manage-infectious-specimens-south>]. Accessed 04 March 2021.

[4] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>] Accessed 05 March 2021.

2.1.1b

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

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

Current Year Score: 0

There is no evidence of a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. No evidence is found under the Ministry of Health or associated websites. The National Public Health Laboratory does not have a website and the diagnostics portal on the Ministry of Health is not yet activated, hence no further information on the matter could be gathered. [1] There is no relevant information in the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 ,the Policy Framework 2013-2016 or the National Health Policy 2016-2026.[2,3,4] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic.[5] According to the Ministry of Health, in light of the present COVID-19 pandemic a 'National COVID-19 Response Plan' exists but this plan does not include testing or scaling capacity for testing for the disease.[6] Infact, there is evidence that the World Health Organization and the European Union stepped in to increase access to diagnostics to tackle COVID-19 in South Sudan. [7]

[1] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>] Accessed 05 March 2021.

[2] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[3] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

- [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021
- [4] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021
- [5] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021.
- [6] Republic of South Sudan. Ministry of Health. 'COVID-19-National COVID-19 Operational Response Plan'. [<https://moh.gov.ss/covid-19.php>] Accessed 05 March 2021
- [7] World Health Organization(WHO) 17 November 2020. South Sudan: EU and WHO increase access to diagnostics to tackle COVID-19.[<https://www.who.int/news-room/feature-stories/detail/south-sudan-eu-and-who-increase-access-to-diagnostics-to-tackle-covid-19>] Accessed 05 March 2021

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 evidence that South Sudan's national reference laboratory is accredited. The Ministry of Health Policy Framework 2013- 2016, published February 2013, mentions the Ministry of Health (MoH) was planning on opening a national reference laboratory in Juba. [1] The MoH Health Sector Development Plan 2012-2016 notes that at publication there were "inadequate national quality control and reference laboratory services." [2] There is no further information in the National Health Policy 2016-2026. [3]According to the World Health Organisation (WHO), Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, the National Public Health Laboratory (NPHL) in Juba is the main reference laboratory. "The NPHL is enrolled in the Strengthening Laboratory Management Towards Accreditation programme and is currently working towards accreditation." [4] There is no website for the NPHL to corroborate this information. The Diagnostic Services in the Directorate of Medical Services page on the MoH website is still under development and includes no information. [5] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[3] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[

https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. "Diagnostic Services." [<https://moh.gov.ss/index.php#>]. Accessed 05 March 2021

[5] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

While there is limited information indicating that South Sudan has a national laboratory that serves as a reference facility for the country and has External Quality Assurance (EQA) programmes for some diseases, it does not have a mandatory EQA and the specific tests cannot be verified. The Ministry of Health (MOH) Policy Framework 2013- 2016, published February 2013, mentions the MOH was planning on opening a national reference laboratory in Juba. [1] The MoH Health Sector Development Plan 2012-2016 notes that at publication there were "inadequate national quality control and reference laboratory services." [2] No further evidence noted in the National Health Policy 2016-2026.[3] According to the World Health Organisation (WHO), Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, the National Public Health Laboratory (NPHL) in Juba is the main reference laboratory. The NPHL has no guidelines for mandatory EQA. The JEE also does not list the specific tests performed. [4] There is no NPHL website to corroborate this information. The Diagnostic Services in the Directorate of Medical Services page on the MOH website is still under development and includes no information. [5] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[3] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [

https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. "Diagnostic Services." [<https://moh.gov.ss/index.php#>]. Accessed 05 March 2021

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021

Forestry.html#projects]. Accessed 05 March 2021

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has a national specimen transport system. According to the World Health Organisation (WHO), Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, "a draft policy for specimen transportation has been developed." [1] There is no publicly available evidence that this draft has been implemented. Specimen transport is not discussed in the Ministry of Health (MoH) Policy Framework 2013-2016 (published February 2013), Health Sector Development Plan 2012-2016, or the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [2,3,4] No further evidence is found under the National Health Policy 2016-2026 [5] The Ministry of Health website does not discuss the specimen transport system. [6] The Ministry of Livestock, Animal Resources and Fisheries does not have a website. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 05 March 2021.

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021

[6] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 05 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 05 March 2021

[8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no evidence of 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. No evidence is found under the Ministry of Health or associated websites. The National Public Health Laboratory does not have a website and the diagnostics portal on the Ministry of Health is not yet activated, hence no further information on the matter could be gathered. [1] There is no relevant information in the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 ,the Policy Framework 2013-2016 or the National Health Policy 2016-2026.[2,3,4] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic.[5] In light of COVID-19 although there is evidence that testing has been expanded with the help of the World Health Organization and the European Union, there is no evidence of a formal plan to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale up testing. [6,7] No further evidence is found under the 'National COVID-19 Response Plan' released by the Ministry of Health.[8]

[1] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>] Accessed 05 March 2021.

[2] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[3] Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021

[4] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021

[5] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021.

[6] XINHUANET. 03 August 2020. 'South Sudan's COVID-19 cases surge amid expanded testing'. [http://www.xinhuanet.com/english/2020-08/03/c_139259527.htm] Accessed 05 March 2021

[7] World Health Organization(WHO) 17 November 2020. South Sudan: EU and WHO increase access to diagnostics to tackle COVID-19.[<https://www.who.int/news-room/feature-stories/detail/south-sudan-eu-and-who-increase-access-to-diagnostics-to-tackle-covid-19>] Accessed 05 March 2021

[8] Republic of South Sudan. Ministry of Health. 'COVID-19-National COVID-19 Operational Response Plan'. [<https://moh.gov.ss/covid-19.php>] Accessed 05 March 2021

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 1

There is evidence indicating that South Sudan has an ongoing event-based surveillance unit (EBS) conducting regular surveillance. However, the frequency of surveillance analysis is unclear and there is insufficient evidence it occurs daily. As described in the World Health Organisation (WHO), Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, South Sudan has both Indicator Based Surveillance (IBS) and EBS systems through the Integrated Disease Surveillance and Response (IDSR) strategy, which conducts surveillance on 26 priority diseases. The IBS reporting is done weekly on 14 epidemic-prone diseases. Currently the EBS system is regularly collecting data, but only through the formal reporting system and the JEE recommends expansion to include informal reporting channels. [1] An EBS unit is not described in the Ministry of Health (MoH) Policy Framework 2013- 2016, Health Sector Development Plan 2012-2016, the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016 or the National Health Policy 2016-2026. [2,3,4,5] There is no relevant information on the Ministry of Health website. [6] The Ministry of Livestock, Animal Resources and Fisheries does not have functioning website. [7] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [8]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 05 March 2021.

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021

[6] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 05 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 05 March 2021.

[8] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021.

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: 1

There is evidence that South Sudan has reported a potential public health emergency of international concern to the World Health Organisation (WHO) in the last two years. South Sudan declared a Yellow Fever outbreak on 18 April 2020 and has reported the outbreak to the WHO. [1] There is no relevant information on the Ministry of Health (MOH) website. [2] At present the country is battling the Covid-19 pandemic and public alerts, surveillance data and updates on the outbreak in the country are provided on the websites of Ministry of Health, WHO websites. [2,3] South Sudan reported Corona Virus cases to WHO since 03 January, 2020 and there is evidence that South Sudan is working closely with the WHO to manage the pandemic in the country.[4,5]

[1] World Health Organisation (WHO). "Disease Outbreak News: South Sudan."

[<https://www.who.int/csr/don/archive/country/ssd/en/>]. Accessed 05 March 2020

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss/>]. Accessed 05 March 2021

[3] World Health Organization(WHO).South Sudan.[<https://www.afro.who.int/search/node?keys=south+sudan>] Accessed 05 March 2021

[4] World Health Organization.South Sudan. Enhancing COVID-19 response in South

Sudan.[<https://www.afro.who.int/news/enhancing-covid-19-response-south-sudan>] Accessed 05 March 2021

[5] World Health Organization. COVID-19 Dashboard. South Sudan.[<https://covid19.who.int/region/afro/country/ss>] Accessed 05 March 2021

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that South Sudan operates an electronic reporting surveillance system, both at the national and sub-national level. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, South Sudan uses two reporting systems the District Health Information Software (DHIS) 1.4 and the Early Warning, Alert and Response System (EWARS). There are paper and electronic reporting forms for surveillance, outbreak, and laboratory information. [1] According to the World Health Organization (WHO), 'In 2016, with support from WHO and partners, South Sudan was the first country in the world to roll out "EWARS in a box," the early warning, alert and response system (EWARS) that permitted mobile phone-based reporting of priority outbreak-prone diseases from a number of partner-supported health facilities in the conflict-affected areas of the country. Over the years, the system has served as a key surveillance tool for outbreak-prone diseases (such as measles, viral haemorrhagic fevers, and cholera) and other priority conditions (such as malaria and Guinea worm) in South Sudan, in

support of the country's Integrated Disease Surveillance and Response (IDSR) strategy'. 'In 2017 EWARS was installed in every state and county throughout South Sudan, allowing health facilities' paper-based weekly IDSR forms to be entered electronically at the county level so that higher levels of the health system (state and national) could immediately track disease occurrence and receive alerts about unusual disease patterns in any county in the country'. [2] There is no relevant information on the Ministry of Health (MOH) website. [3] The Ministry of Livestock, Animal Resources and Fisheries do not have functioning websites. [4] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [5]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[2] World Health Organization (WHO). South Sudan. 16 February 2019. 'With support from WHO, the Ministry of Health to rollout Mobile Phone-Based Surveillance System to every health facility in South Sudan'. [<https://www.afro.who.int/pt/node/10884>] Accessed 05 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 05 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 05 March 2021

[5] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021

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 insufficient evidence that the electronic reporting surveillance system in South Sudan collects ongoing or real-time laboratory data. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, South Sudan uses two reporting systems the District Health Information Software (DHIS) 1.4 and the Early Warning, Alert and Response System (EWARS). There are paper and electronic reporting forms exist for surveillance, outbreak, and laboratory information. [1] According to the World Health Organization (WHO), 'In 2016, with support from WHO and partners, South Sudan was the first country in the world to roll out "EWARS in a box," the early warning, alert and response system (EWARS) that permitted mobile phone-based reporting of priority outbreak-prone diseases from a number of partner-supported health facilities in the conflict-affected areas of the country. Over the years, the system has served as a key surveillance tool for outbreak-prone diseases (such as measles, viral haemorrhagic fevers, and cholera) and other priority conditions (such as malaria and Guinea worm) in South Sudan, in support of the country's Integrated Disease Surveillance and Response (IDSR) strategy'. 'In 2017 EWARS was installed in every state and county throughout South Sudan, allowing health facilities' paper-based weekly IDSR forms to be entered electronically at the county level so that higher levels of the health system (state and national) could immediately track disease occurrence and receive alerts about unusual disease patterns in any county in the country'. 'The system will also allow individual health facilities to make urgent reports about any other unusual disease events, including unstructured rumours of disease occurrence in nearby communities ('Community Event-based Surveillance'); this provides an additional way to alert about outbreaks that are not detected in the health facilities'. 'The EWARS system can integrate with laboratories and can track also outbreaks once they are identified. The EWARS system is also flexible to allow for additional reporting requirements as needed in specific facilities, such as nutritional surveillance, mortality reports, facility service availability monitoring, and others'. [2]' The current rollout phase also facilitates laboratory based surveillance and sample

tracking, testing and laboratory result feedback to lower level health facilities'. [3] There is no relevant information on the Ministry of Health website. [4] The Ministry of Livestock, Animal Resources and Fisheries do not have functioning websites. [5] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[2] World Health Organization (WHO). South Sudan. 16 February 2019. 'With support from WHO, the Ministry of Health to rollout Mobile Phone-Based Surveillance System to every health facility in South Sudan'. [<https://www.afro.who.int/pt/node/10884>] Accessed 05 March 2021

[3] PreventionWeb. 25 May 2018. [WHO enhances real-time surveillance in resource limited and hard to reach areas of South Sudan using a mobile-based reporting system] Accessed 05 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 05 March 2021

[5] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 05 March 2021

[6] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 05 March 2021

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 0

There is no evidence that electronic health records are commonly in use in South Sudan. Electronic health records are not discussed in the Ministry of Health (MoH) Policy Framework 2013-2016, MOH Health Sector Development Plan 2012-2016, the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016, or the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017. [1,2,3,4] No evidence is found in the National Health Policy 2016-2026 [5]The MOH website does not mention electronic health records. [6]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 05 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 05 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master

Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 05 March 2021

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 05 March 2021

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 05 March 2021

[6] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 05 March 2021

2.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the public health system has access to electronic health records of individuals in their country. Electronic health records are not discussed in the Ministry of Health (MOH) Policy Framework 2013-2016, MOH Health Sector Development Plan 2012-2016, the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016, or the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017. [1,2,3,4] . No evidence is found in the National Health Policy 2016-2026. [5]The MOH website does not mention electronic health records. [6]

[1] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 06 March 2021.

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 06 March 2021

[3] Republic of South Sudan.Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 06 March 2021

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 06 March 2021

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 06 March 2021

[6] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 06 March 2021

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that electronic health records are commonly in use in South Sudan and no information as to whether there are standards to ensure data is comparable. Electronic health records are not discussed in the Ministry of Health (MoH) Policy Framework 2013-2016, MoH Health Sector Development Plan 2012-2016, the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016, or the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017. [1,2,3,4] The MoH website does not mention electronic health records. [5]

[1] Republic of South Sudan Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 13 March 2021

[2] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 13 March 2021.

[3] Republic of South Sudan. Ministry of Health. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 13 March 2021.

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 13 March 2021.

[5] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss/>]. Accessed 13 March 2021

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, notes a lack of information sharing across sectors generally. The JEE also notes there are both an World Organisation for Animal health (OIE) delegate and a national IHR focal point in the Ministry of Livestock, Animal Resources and Fisheries and Ministry of Health respectively, but does not elaborate on the collaboration between them generally or regarding data sharing. [1] This is not discussed in the Ministry of Health (MOH) Policy Framework 2013-2016, MOH Health Sector Development Plan 2012-2016, or the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [2,3,4]. No evidence is found in the National Health Policy 2016-2026.[5] The Ministry of Livestock, Animal Resources and Fisheries do not have functioning websites. [6] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [7]

- [1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 06 March 2021
- [2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 06 March 2021
- [3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 06 March 2021
- [4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 06 March 2021
- [5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 06 March 2021
- [6] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 06 March 2021.
- [7] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 06 March 2021

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that South Sudan makes de-identified health surveillance data on disease outbreaks publicly available via reports on government websites. No evidence is found in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017.[1] There is no evidence on the Ministry of Health website.[2] Humanitarian Health Action published South Sudan weekly epidemiological updates on the WHO website through the Integrated Disease Surveillance and Response (IDSR) programme from 2014 to 2018. The weekly epidemiological update included both indicator-based surveillance (IBS) data and event-based from the Early Warning, Alert and Response System (EWARS). Data is available by county and disease. No disease updates have been uploaded since 2019. [3] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [4] In light of the present COVID-19 pandemic, de-identified health surveillance data is made available on the Ministry of Health website, both daily and weekly updates [5]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 06 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 06 March 2021

[3] World Health Organization (WHO). Humanitarian Health Action. South Sudan Integrated Disease Surveillance and Response (ISDR).[<https://www.who.int/hac/crises/ssd/epi/en/>] Accessed 06 March 2021

[4] Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 06 March 2021

[5] Republic of South Sudan. Ministry of Health. Update on COVID-19 Response.[<https://moh.gov.ss/covid-19.php>].Accessed 06 March 2021

2.4.3b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that South Sudan makes de-identified COVID-19 surveillance data including details such as daily cumulative case count, cumulative death count, daily new cases, daily new death, number of critical cases, number of severe cases, number of recoveries etc available via daily reports on Ministry of Health website. [1]

[1] Republic of South Sudan. Ministry of Health. Update on COVID-19 Response.COVID-19 Daily Updates.[https://moh.gov.ss/daily_updates.php] Accessed 06 March 2021

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that South Sudan has laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. Such laws are not discussed in the Ministry of Health (MOH) Policy Framework 2013-2016 and the MOH Health Sector Development Plan 2012-2016. [1,2] Such laws are not discussed in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), of the Republic of South Sudan. [3] No evidence is found in the National Health Policy 2016-2026. [4] Relevant laws are not discussed on the MOH website or on the South Sudan Health Information Dashboard. [5,6] There is no data available for South Sudan on the United Nations Conference on Trade and Development (UNCTAD), Data Protection and Privacy Legislation Worldwide website. [7]

[1] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 06 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%20

2012-16.pdf]. Accessed 06 March 2021

[3] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 06 March 2021

[4] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[
https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 06 March 2021

[5] Republic of South Sudan. Ministry of Health. [https://moh.gov.ss]. Accessed 06 March 2021

[6] Ministry of Health. South Sudan Health Information Dashboard. "M&E Health Mapping."
[https://www.southsudanhealth.info/pages/ig/13]. Accessed 06 March 2021

[7] United Nations Conference on Trade and Development (UNCTAD). "Data Protection and Privacy Legislation Worldwide." [https://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Data-Protection-Laws.aspx]. Accessed 06 March 2021

2.4.4b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that South Sudan has laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities that includes mention of protections from cyber attacks (e.g., ransomware). Such laws are not discussed in the Ministry of Health (MOH) Policy Framework 2013-2016 and the MOH Health Sector Development Plan 2012-2016. [1,2] Such laws are not discussed in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), of the Republic of South Sudan. [3] No evidence is found in the National Health Policy 2016-2026.[4] Relevant laws are not discussed on the MOH website or on the South Sudan Health Information Dashboard. [5,6]There is no data available for South Sudan on the United Nations Conference on Trade and Development (UNCTAD), Data Protection and Privacy Legislation Worldwide website. [7]

[1] Republic of South Sudan. Ministry of Health of The Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 06 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 06 March 2021

[3] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 06 March 2021

[4] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[
https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 06 March 2021

[5] Republic of South Sudan. Ministry of Health. [https://moh.gov.ss]. Accessed 06 March 2021

[6] Ministry of Health. South Sudan Health Information Dashboard. "M&E Health Mapping."

[<https://www.southsudanhealth.info/pages/ig/13>]. Accessed 06 March 2021

[7] United Nations Conference on Trade and Development (UNCTAD). "Data Protection and Privacy Legislation Worldwide."

[https://unctad.org/en/Pages/DTL/STI_and_ICTs/ICT4D-Legislation/eCom-Data-Protection-Laws.aspx]. Accessed 06 March 2021

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 insufficient evidence that the government of South Sudan has made a commitment via public statements, legislation, or a cooperative agreement to share surveillance data during a public health emergency for one or more diseases with other countries in the region. There is some evidence that South Sudan shares surveillance data during a public health emergency with other countries in the region via the World Health Organisation (WHO) Global Early Warning, Alert and Response System (EWARS), but this is not corroborated by government of South Sudan resources. According to the WHO Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, South Sudan uses two reporting systems the District Health Information Software (DHIS) 1.4 and EWARS. [1] 'In 2016, with support from WHO and partners, South Sudan was the first country in the world to roll out "EWARS in a box," the early warning, alert and response system (EWARS) that permitted mobile phone-based reporting of priority outbreak-prone diseases from a number of partner-supported health facilities in the conflict-affected areas of the country. The EWARS project in South Sudan is part of a broader WHO Global EWARS project, through which the country is able to improve disease outbreak detection in emergency settings and shares data with the WHO. [2,3] However, the Ministry of Health (MOH) Policy Framework 2013-2016, published February 2013, does not discuss a such data sharing. [4] The MOH Health Sector Development Plan 2012-2016 does not discuss data sharing. [5] The South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016 does not discuss data sharing. [6] There is no relevant information on the MOH website or press releases on the website.[7] No further evidence in the National Health Policy 2016-2026 [8] The Ministry of Livestock, Animal Resources and Fisheries do not have functioning websites. [9] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [10]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 06 March 2021

[2] World Health Organization (WHO). South Sudan. 16 February 2019. 'With support from WHO, the Ministry of Health to rollout Mobile Phone-Based Surveillance System to every health facility in South Sudan'. [<https://www.afro.who.int/pt/node/10884>] Accessed 06 March 2021

[3] World Health Organisation (WHO). "EWARS: A Simple, Robust System to Detect Disease Outbreaks." [<https://www.who.int/emergencies/kits/ewars/en/>]. Accessed 06 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 06 March 2021

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 06 March 2021

[6] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 06 March 2021

[7] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 06 March 2021

[8] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 06 March 2021

[9] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 06 March 2021

[10] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 06 March 2021

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 1

There is evidence of 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, but only in response to active public health emergencies. In light of the present Covid-19 pandemic, Contact Tracing has been given importance and Standard Operating Procedures and Contact Tracing Training Guidelines have been published by the Ministry of Health to provide guidance on Procedures for Contact tracing and listing, roles of team members, guidelines for supervisors and members, data base management etc at the sub national level, although there is no evidence this could be used for other diseases in the future. [1] No evidence of such a system is found under the World Health Organization (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017. Although the JEE mentions a national public health laboratory, no website for the said institution exists. [2] No further evidence is found under the Ministry of Health website.[3]

[1] Republic of South Sudan. Ministry of Health. National COVID-19 Response Plan. [https://moh.gov.ss/epidemiology_and_surveillance.php] Accessed 03 May 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 03 May 2021

[3] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 03 May 2021

2.5.1b

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

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

Current Year Score: 0

There is no evidence that South Sudan 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. No evidence is found under the Ministry of Health website.[1] No evidence of such a system is found under the World Health Organization (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017. [2] Although the JEE mentions a national public health laboratory, no website for the said institution exists. In the present Covid-19 pandemic, although self isolation and quarantining of cases and suspected cases has been stressed and medical attention to these cases has been given importance, there is no mention of wraparound medical services and the other services particularly economic support etc has not been mentioned.[3]

[1] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 06 March 2021

[2] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 06 March 2021

[3] Republic of South Sudan. Ministry of Health. National COVID-19 Response Plan. South Sudan COVID-19 Response guidelines/Standard Operating procedure. [<https://moh.gov.ss/covid-19.php>] Accessed 03 May 2021

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is not enough evidence that South Sudan makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports on government websites. There is evidence that South Sudan makes de-identified COVID-19 surveillance data including details such as daily cumulative case count, cumulative death count, daily new cases, daily new death, number of critical cases, number of severe cases, number of recoveries etc available via daily reports on Ministry of Health website. Additionally there is evidence of efforts on contact tracing, and the number of contacts under follow up/observation and the cumulative number of contacts followed up are also listed on the website, however there is no mention the percentage of new cases from the identified contacts on the site. [1]

[1] Republic of South Sudan. Ministry of Health. Update on COVID-19 Response. Daily Updates.[https://moh.gov.ss/daily_updates.php] Accessed 07 March 2021

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

There is no evidence of 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 an active or for a future public health emergency. No evidence is found under the Ministry of Health. [1] South Sudan does not have a Ministry of Immigration website, no further evidence is found on the official government website. [2]

[1] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 07 March 2021

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

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

There is no evidence that South Sudan has an in-country Field Epidemiology Training Programme (FETP), but there is evidence that South Sudanese medical professionals are trained abroad. There is insufficient evidence proving that the Government of South Sudan provided resources for the training abroad. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, says a field epidemiology training initiative through the United States Centres for Disease Control and Prevention (CDC) was terminated in 2013. It suggests that the programme be re-established. [1] South Sudanese laboratory and medical professions have participated in FETP programs abroad. [2] South Sudan is a participating country in the African Field Epidemiology Network (AFENET). However the website also notes that AFENET is only involved in Public Health Projects and there are no Field Epidemiology Training Projects in the country.[3]The Medical Training and Professional Development page of the Ministry of Health (MOH) website does not mention field epidemiology training of any kind. [4] No other evidence is found under the Official website of the Government.[5]

- [1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 07 March 2021
- [2] African Field Epidemiology Network (AFENET). News. 3rd Ethiopia FELTP Conference and 10 Anniversary Celebration. [<http://www.afenet.net/index.php/news/news/546-3rd-ethiopia-feltp-conference-and-10-anniversary-celebration>] Accessed 07 March 2021
- [3] African Field Epidemiology Network (AFENET). About Us-The Network. [<http://www.afenet.net/index.php/about-us/who-we-are/who-we-are-2>] Accessed 07 March 2021
- [4] Republic of South Sudan. Ministry of Health. "Medical Training and Professional Development." [https://moh.gov.ss/medical_training_and_professional_development.php]. Accessed 07 March 2021
- [5] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of field epidemiology training programs for South Sudanese professionals that are explicitly inclusive of animal health professionals or that there is a specific animal health field epidemiology training program offered (such as FETPV). There is only evidence that South Sudanese professionals are trained abroad. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, says a field epidemiology training initiative through the United States Centres for Disease Control and Prevention (CDC) was terminated in 2013. It suggests that the programme be re-established. [1] South Sudanese laboratory and medical professions have participated in FETP programs abroad. [2] South Sudan is a participating country in the African Field Epidemiology Network (AFENET). However the website also notes that AFENET is only involved in Public Health Projects and there are no Field Epidemiology Training Projects in the country.[3]The Medical Training and Professional Development page of the Ministry of Health (MoH) website does not mention field epidemiology training of any kind. [4] The Ministry of Livestock, Animal Resources and Fisheries does not have functioning website. [5] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [6] No other evidence is found under the Official website of the Government.[5]

- [1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 07 March 2021
- [2] African Field Epidemiology Network (AFENET). News. 3rd Ethiopia FELTP Conference and 10 Anniversary Celebration. [<http://www.afenet.net/index.php/news/news/546-3rd-ethiopia-feltp-conference-and-10-anniversary-celebration>] Accessed 07 March 2021
- [3] African Field Epidemiology Network (AFENET). About Us-The Network. [<http://www.afenet.net/index.php/about-us/who-we-are/who-we-are-2>] Accessed 07 March 2021
- [4] Republic of South Sudan. Ministry of Health. "Medical Training and Professional Development." [https://moh.gov.ss/medical_training_and_professional_development.php]. Accessed 07 March 2021
- [5] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021
- [6] Republic Of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and->

Forestry.html#projects]. Accessed 07 March 2021

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1, No = 0

Current Year Score: 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 insufficient evidence that South Sudan has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential although there is evidence of disease-specific plans. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, "an all hazard national emergency preparedness and response plan is yet to be developed; however, some specific response plants have been developed (i.e. Ebola Virus Disease, malaria, measles, cholera, hepatitis E and meningitis." South Sudan has a plan to create a directory of rapid response teams (RRTs), but this has not been carried out. Emergency preparedness and response activities and materials are typically driven by partners or donors. [1] In line with the JEE recommendations, South Sudan launched its National Action Plan for Health Security (NAPHS) 2020-2024, in December 2020. 'The NAPHS will be implemented over the coming five years (2020-2024) to accelerate progress towards attaining and maintaining IHR core capacities and institutionalizing the One Health and all hazards approaches to protect the country and the world from the impacts of public health emergencies'. The World Health Organization (WHO) is hopeful that 'The NAPHS allows the opportunity to build multisectoral capacities to comprehensively respond to outbreaks'. [2] However, there is insufficient evidence that this plan addressess planning for multiple communicable diseases with epidemic or pandemic potential. No further details on the

NAPHS is found on the Ministry of Health website or the Official website of the Government of South Sudan.[3,4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 07 March 2021

[2] World Health Organization (WHO). South Sudan. 'South Sudan launches a comprehensive five-year National Action Plan for Health Security to strengthen its capacity to prevent, detect, and respond to public health emergencies'. [<https://www.afro.who.int/news/south-sudan-launches-comprehensive-five-year-national-action-plan-health-security-strengthen>] Accessed 07 March 2021

[3] Ministry of Health of the Republic of South Sudan. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 07 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

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 insufficient evidence that South Sudan has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential and therefore no evidence that it has been updated in the past three years. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, "an all hazard national emergency preparedness and response plan is yet to be developed; however, some specific response plants have been developed (i.e. Ebola Virus Disease, malaria, measles, cholera, hepatitis E and meningitis." South Sudan has a plan to create a directory of rapid response teams (RRTs), but this has not been carried out. Emergency preparedness and response activities and materials are typically driven by partners or donors. [1] In line with the JEE recommendations, South Sudan launched its National Action Plan for Health Security (NAPHS) 2020-2024, in December 2020. 'The NAPHS will be implemented over the coming five years (2020-2024) to accelerate progress towards attaining and maintaining IHR core capacities and institutionalizing the One Health and all hazards approaches to protect the country and the world from the impacts of public health emergencies'. The World Health Organization (WHO) is hopeful that 'The NAPHS allows the opportunity to build multisectoral capacities to comprehensively respond to outbreaks'. [2] However, there is insufficient evidence that this plan addresses planning for multiple communicable diseases with epidemic or pandemic potential. No further details on the NAPHS is found on the Ministry of Health website or the Official website of the Government of South Sudan.[3,4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 07 March 2021

[2] World Health Organization (WHO). South Sudan. 'South Sudan launches a comprehensive five-year National Action Plan for Health Security to strengthen its capacity to prevent, detect, and respond to public health emergencies'. [<https://www.afro.who.int/news/south-sudan-launches-comprehensive-five-year-national-action-plan-health-security-strengthen>] Accessed 07 March 2021

[3] Ministry of Health of the Republic of South Sudan. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 07 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

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 insufficient evidence that South Sudan has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential and therefore no evidence that it includes considerations for pediatric and/or other vulnerable populations. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, "an all hazard national emergency preparedness and response plan is yet to be developed; however, some specific response plants have been developed (i.e. Ebola Virus Disease, malaria, measles, cholera, hepatitis E and meningitis." South Sudan has a plan to create a directory of rapid response teams (RRTs), but this has not been carried out. Emergency preparedness and response activities and materials are typically driven by partners or donors. [1] In line with the JEE recommendations, South Sudan launched its National Action Plan for Health Security (NAPHS) 2020-2024, in December 2020. 'The NAPHS will be implemented over the coming five years (2020-2024) to accelerate progress towards attaining and maintaining IHR core capacities and institutionalizing the One Health and all hazards approaches to protect the country and the world from the impacts of public health emergencies'. The World Health Organization (WHO) is hopeful that 'The NAPHS allows the opportunity to build multisectoral capacities to comprehensively respond to outbreaks'. [2] However, there is insufficient evidence that this plan addresses planning for multiple communicable diseases with epidemic or pandemic potential. No further details on the NAPHS is found on the Ministry of Health website or the Official website of the Government of South Sudan.[3,4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 07 March 2021

[2] World Health Organization (WHO). South Sudan. 'South Sudan launches a comprehensive five-year National Action Plan for Health Security to strengthen its capacity to prevent, detect, and respond to public health emergencies'. [<https://www.afro.who.int/news/south-sudan-launches-comprehensive-five-year-national-action-plan-health-security-strengthen>] Accessed 07 March 2021

[3] Ministry of Health of the Republic of South Sudan. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 07 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that South Sudan has specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response. While there is evidence that South Sudan works with international organisations like the World Health Organization (WHO), to assist with outbreak emergency preparedness and response, there is not enough evidence that South Sudan works with the private sector. There is mention of the general desire to promote collaboration with the private sector and public private partnerships for health service delivery in the February 2013, Ministry of Health (MOH) Policy Framework 2013-2016 and in the MOH Health Sector Development Plan 2012-2016, but neither address emergency preparedness and response specifically. [1,2] Collaboration with the private sector is not discussed in the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016 [3] There is no mention of the private sector in relation to emergency response in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017. [4] South Sudan launched National Action Plan for Health Security in December 2020 but no further details are found either on the Ministry of Health Website or the Government Official website.[5,6,7] The MOH has Private Medical Coordination in its structure and organization, but no further details on the same[8]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 07 March 2021.

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 07 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 07 March 2021

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 07 March 2021

[5] World Health Organization (WHO). South Sudan. 'South Sudan launches a comprehensive five-year National Action Plan for Health Security to strengthen its capacity to prevent, detect, and respond to public health emergencies'. [<https://www.afro.who.int/news/south-sudan-launches-comprehensive-five-year-national-action-plan-health-security-strengthen>] Accessed 07 March 2021

[6] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 07 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

[8] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. "Private Medical Coordination." [<https://moh.gov.ss/organogram.php>]. Accessed 07 March 2021.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 1

South Sudan does have guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic but these guidelines exist for only one disease. In light of the COVID-19 pandemic, infection control guidelines have been published by the Ministry of Health, with criteria for implementation of NPIs. These include physical distancing, wearing of masks, cleaning and disinfection of environmental surfaces, handwashing etc.[1] There is no further evidence for other diseases in the February 2013, Ministry of Health (MOH) Policy Framework 2013-2016, MOH Health Sector Development Plan 2012-2016, South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016 or the National Health Policy 2016-2026 [2,3,4,5] No evidence of such a plan for other diseases is found under the Ministry of Health or the Official Government website [6,7] National Action Plan for Health Security (NAPHS) 2020-2024 was launched in December 2020 but no further details on the plan are available on the government websites [8, 6,7]

[1] Republic of South Sudan. Ministry of Health. COVID-19. South Sudan COVID-19 Response guidelines/Standard Operating procedure-Infection Prevention Control.[<https://moh.gov.ss/covid-19.php>] Accessed 07 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 07 March 2021.

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 07 March 2021

[4] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 07 March 2021

[5] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026.[https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 07 March 2021

[6] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Policy Documents" [<https://southsudanhealth.info/library.php>]. Accessed 07 March 2021

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

[8] World Health Organization (WHO). South Sudan. 'South Sudan launches a comprehensive five-year National Action Plan for Health Security to strengthen its capacity to prevent, detect, and respond to public health emergencies'. [<https://www.afro.who.int/news/south-sudan-launches-comprehensive-five-year-national-action-plan-health-security-strengthen>] Accessed 07 March 2021

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 1

There is evidence that the country has activated their national emergency response plan for an infectious disease outbreak in the past year and there is also evidence that the country has completed a national-level biological threat-focused exercise (both with WHO and separately) in the past year. South Sudan has an emergency response plan, the National Action Plan for Health Security that was launched in December 2020. [1]In light of the present COVID-19 pandemic a specific National COVID-19 Operational Response Plan was published and activated by the Government of Sudan under the Ministry of Health. [2]There is evidence that the country has completed a national-level biological threat-focused exercise in the past year. In August 2019, Simulation exercise for Ebola Virus Disease Preparedness was conducted under the WHO as evidenced under the WHO website.[3]Further, Simulation exercises for public health emergencies were conducted at the Public Health Emergency Operations Center from December 4 to 5, 2019.[4]

[1] World Health Organization (WHO). South Sudan. 'South Sudan launches a comprehensive five-year National Action Plan for Health Security to strengthen its capacity to prevent, detect, and respond to public health emergencies'. [<https://www.afro.who.int/news/south-sudan-launches-comprehensive-five-year-national-action-plan-health-security-strengthen>] Accessed 07 March 2021

[4] Republic of South Sudan. Ministry of Health.COVID-19. National COVID-19 Operational Response Plan.[<https://moh.gov.ss/covid-19.php>] Accessed 07 March 2021

[3] World Health Organization (WHO). Strategic Partnership For International Health Regulations (2005) and Health Security (SPH).[<https://extranet.who.int/sph/simulation-exercise?region=All&country=238>] Accessed 07 March 2021

[4] ReliefWeb. 03 December 2019. South Sudan set for Public Health Emergency Operations Centre (PHEOC) Regional simulation exercise.[<https://reliefweb.int/report/south-sudan/south-sudan-set-public-health-emergency-operations-centre-pheoc-regional>] Accessed 09 March 2021

3.2.1b

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

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

Current Year Score: 0

There is no evidence that 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. World Health Organization (WHO) website shows that South Sudan has conducted an After Action Review in July 2020 for Public Health Emergency (Flood) but a full report is not available . There is also evidence that an After Action Review has been planned but there is no evidence that a list of gaps and best practices has been identified or that a plan has been developed to improve response capabilities. [1] No further information is found on the Ministry of Health website or the official government website [2,3]. There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic.[4]

[1] World Health Organization (WHO).After Action Review.South Sudan.[<https://extranet.who.int/sph/after-action-review?region=All&country=238>] Accessed 09 March 2021

[2] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. [<https://southsudanhealth.info/library.php>]. Accessed 07 March 2021

[3] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 07 March 2021

[4] Republic Of South Sudan.Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 09 March 2021

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 evidence that South Sudan in the past year has undergone a national-level biological threat-focused exercise but there is no evidence that this exercise has included private sector representatives. Although there is evidence of an After Action Review conducted in July 2020 or public health emergency (Floods) and of an After Action Review that is planned, there is no evidence that it included private sector representatives.[1] There is evidence that the country has completed a national-level biological threat-focused exercise in the past year. In August 2019, Simulation exercise for Ebola Virus Disease Preparedness was conducted under the WHO as evidenced under the WHO website.[2] Further, Simulation exercises for public health emergencies were conducted at the Public Health Emergency Operations Center from December 4 to 5, 2019 [3] There is no evidence that these exercises included private sector representatives. No evidence of a simulation exercise that included private sector is found in the WHO pages.[4] No further information is found on the Ministry of Health website or the official government website .[5,6] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic.[7]

[1] World Health Organisation (WHO). After Action Review. [<https://extranet.who.int/sph/after-action-review>]. Accessed 09 March 2021

[2] World Health Organization (WHO). Strategic Partnership For International Health Regulations (2005) and Health Security (SPH).[<https://extranet.who.int/sph/simulation-exercise?region=All&country=238>] Accessed 09 March 2021

[3] ReliefWeb. 03 December 2019. South Sudan set for Public Health Emergency Operations Centre (PHEOC) Regional simulation exercise.[<https://reliefweb.int/report/south-sudan/south-sudan-set-public-health-emergency-operations-centre-pheoc-regional>] Accessed 09 March 2021

[4] World Health Organization(WHO). South Sudan.[<https://www.who.int/countries/ssd/>] Accessed 09 March 2021

[5] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard.

[https://southsudanhealth.info/library.php]. Accessed 09 March 2021

[6] Government of the Republic of South Sudan. [http://www.goss-online.org/index.html]. Accessed 09 March 2021

[7] Republic Of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects]. Accessed 09 March 2021

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has an Emergency Operations Centre (EOC) that manages public health-related emergencies including pandemics. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, the EOC is still under construction and currently a virtual EOC system in place. Both the under construction EOC and the virtual EOC are situated within the National Public Health Laboratory in the Public Health Directorate of the Ministry of Health (MoH). The JEE states that "the [virtual EOC] operates for eight hours daily, although personal contact details including phone numbers are made available and team members respond to emergencies at any time of the day." It also notes that on occasion the EOC draws on ad hoc personnel, but that the ad hoc personnel are often not trained or accustomed to implementing the plans for emergency response. [1] The EOC is not mentioned in either the MoH Policy Framework 2013-2016 or the Health Sector Development Plan 2012-2016. [2,3] It is not mentioned in South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [4] There is no mention of the EOC on the website of the Ministry of Health. [5]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 09 March 2021.

[2] Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 09 March 2021.

[3] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 09 March 2021.

[4] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 09 March 2021.

[5] Republic of South Sudan. Ministry of Health. [https://moh.gov.ss]. Accessed 09 March 2021

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has an Emergency Operations Centre (EOC) that is required to conduct a health-focused drill for a public health emergency scenario at least once per year or conducts such a drill. There is also no evidence that an annual health focused drill is conducted. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, the EOC is still under construction and currently a virtual EOC system in place. Both the under construction EOC and the virtual EOC are situated within the National Public Health Laboratory in the Public Health Directorate of the Ministry of Health (MoH). The JEE states that "the [virtual EOC] operates for eight hours daily, although personal contact details including phone numbers are made available and team members respond to emergencies at any time of the day." It also notes that on occasion the EOC draws on ad hoc personnel, but that the ad hoc personnel are often not trained or accustomed to implementing the plans for emergency response. [1] The EOC is not mentioned in either the MoH Policy Framework 2013-2016 or the Health Sector Development Plan 2012-2016. [2,3] It is not mentioned in South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [4] There is no mention of the EOC on the website of the Ministry of Health. [5]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021.

[2] Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 09 March 2021.

[3] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 09 March 2021.

[4] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 09 March 2021.

[5] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 09 March 2021

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has an Emergency Operations Centre (EOC) has conducted within the last year a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, the EOC is still under construction and currently a virtual EOC system in place. Both the under construction EOC and the virtual EOC are situated within the National Public Health Laboratory in the Public Health Directorate of the Ministry of Health (MoH). The JEE states that "the [virtual EOC] operates for eight hours daily, although personal contact details including phone numbers are made available and team members respond to emergencies at any time of the day." It also notes that on occasion the EOC draws on ad hoc personnel, but that the ad hoc personnel are often not trained or accustomed to implementing the plans for emergency response. [1] The EOC is not

mentioned in either the MoH Policy Framework 2013-2016 or the Health Sector Development Plan 2012-2016. [2,3] It is not mentioned in South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [4] There is no mention of the EOC on the website of the Ministry of Health. [5]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021.

[2] Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 09 March 2021.

[3] Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 09 March 2021.

[4] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 09 March 2021.

[5] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 09 March 2021

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

There is no evidence to support that South Sudan's public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e. bioterrorism attack). There is no evidence that South Sudan has publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack). Biological events are not mentioned in either the Ministry of Health (MoH) Policy Framework 2013-2016 (published February 2013), the Health Sector Development Plan (2012-2016), or the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [1,2,3] No evidence is found in the National Health Policy 2016-2026.[4]This is not mentioned on the MOH website. [5] .According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2019, there is very little communication and links between public health and security authorities, security personnel are not aware of their role in coordinating with their public health counterparts. The JEE states, "there is no signed protocol, MoU, or any written agreement linking public health to the security forces. No joint exercises nor simulations by public health and security authorities linked to biological and toxins events have been done." It mentions one joint training exercise done with the medical corps of the army for Integrated

Disease Surveillance and Response (IDSR). [6] There is no current website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [7] No further information is found on the official government website.[8]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 09 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 09 March 2021

[3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 09 March 2021

[4] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [

https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 06 March 2021

[5] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021.

[6] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021.

[7] Government of the Republic of South Sudan. "SPLA and Veteran Affairs."

[<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 09 March 2021

[8] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 09 March 2021

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence South Sudan has a strategy (or other legislation, regulation or strategy document used to guide national public health response) that outlines how messages will reach populations and sectors with different communications needs, because South Sudan does not have a coherent strategy or standard operating procedures for public communications at all. The World Health Organisation (WHO) of South Sudan, which supports the Ministry of Health of South Sudan (MoH) communicates information regarding public health emergencies via Twitter [1] Ministry of Health of South Sudan (MoH) also has a twitter account and a Facebook page which at present communicates information on COVID-19. [2,3] The WHO Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, mentions

that South Sudan uses "a Toll Free Telephone line, jingles and bulk SMS messages that enables (mainly for cholera) the community to call and report sick persons, ask questions and receive medical advice," but there are not standard operating procedures for public communications at the MOH media department. [4] There is no relevant information on the MoH website on a definite risk communication plan or strategy but the MOH website does have information and updates on the present COVID-19 pandemic that is accessible to the general public. [5] There is evidence of training of health professionals on risk communication for use during public health emergencies but there is no evidence of a definite risk communication plan [6] No further information on the official government website. [7]

[1] Twitter. "World Health Organisation (WHO) South Sudan." [https://twitter.com/whosouthsudan?lang=en]. Accessed 09 March 2021.

[2] Twitter. "Ministry of Health South Sudan." [https://twitter.com/mohsouthsudan?lang=en]. Accessed 09 March 2021.

[3] Facebook. "Ministry of Health (MoH) South Sudan." [https://www.facebook.com/moh.gov.ss/]. Accessed 09 March 2021

[4] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1]. Accessed 09 March 2021

[5] Ministry of Health of the Republic of South Sudan. [https://moh.gov.ss]. Accessed 09 March 2021

[6] World Health Organization. South Sudan.04 November 2019.Stopping the spread of disease and saving lives through timely risk communication and community engagement in South Sudan. [https://www.afro.who.int/news/stopping-spread-disease-and-saving-lives-through-timely-risk-communication-and-community]. Accessed 09 March 2021

[7] Government of the Republic of South Sudan. [http://www.goss-online.org/index.html]. Accessed 09 March 2021

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a national risk communication strategy or plan in place for use during a public health emergency. The Ministry of Health (MoH) Policy Framework 2013-2016, published February 2013 mentions that a risk communication plan for Central Equatoria, Western Equatoria, and Western Bahr al-Ghazal were created. There is no more recent version and there are no publicly available details regarding this risk communication plan. [1] Risk communication plans are not discussed in the MoH Health Sector Development Plan 2012-2016 or in the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016. [2,3] No evidence is found in the National Health Policy 2016-2026 [4]According to the World Health Organisation (WHO), Joint External Evaluation for IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, the Office of the President coordinates risk communication to the public during an emergency. The JEE notes that there is no national risk communication strategy. While the JEE notes the Health Education and Promotion (HE&P) department of the MoH and a national working group implement risk communication during active outbreaks that the activities are ad hoc. [5] More recently, there is evidence of training of health professionals on risk communication for use during public health emergencies but there is no evidence of a definite risk communication plan [6] There is no mention of risk communication strategies on the MoH website or the official website of the government of South Sudan. [7,8]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 09 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 09 March 2021.

[3] Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 09 March 2021

[4] Republic of South Sudan. Ministry of Health. National Health Policy 2016-2026. [

https://extranet.who.int/countryplanningcycles/sites/default/files/planning_cycle_repository/south_sudan/south_sudan_national_health_policy_2016_to_2025_2.pdf] Accessed 07 March 2021

[5] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021

[6] World Health Organization. South Sudan. 04 November 2019. Stopping the spread of disease and saving lives through timely risk communication and community engagement in South Sudan. [<https://www.afro.who.int/news/stopping-spread-disease-and-saving-lives-through-timely-risk-communication-and-community>]. Accessed 09 March 2021

[7] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021

[8] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 09 March 2021

3.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that there is a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. No evidence is found under the World Health Organisation (WHO), Joint External Evaluation for IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, although it mentions that the the Office of the President coordinates risk communication to the public during an emergency[1] There is no multi-hazard risk communication plan or strategy [1] No evidence of a specific position within the government to serve as the primary spokesperson to the public during a public health emergency is found under the Ministry of Health website or the official website of the government of South Sudan.[2,3]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021

[3] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 09 March 2021

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 1

There is evidence that South Sudan utilizes media platforms to inform the public about active public health emergencies but it does not regularly utilize online media platforms. According to the World Health Organisation (WHO), Joint External Evaluation for IHR Core Capacities (JEE) of the Republic of South Sudan, conducted 15 to 20 October 2017, 'no formalised systems exist for monitoring and addressing media, rumours and other misinformation. Mechanisms for surge staff for risk communication during emergencies are ad hoc'. [1] However, in the present COVID-19 pandemic, the Ministry of Health (MOH) has been effective in regular updates and situational analysis and advisories on its website. [2] The MOH has also been using its Twitter and Facebook pages to update the public on the pandemic.[3,4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021

[3] Twitter. "Ministry of Health South Sudan." [<https://twitter.com/mohsouthsudan?lang=en>]. Accessed 09 March 2021.

[4] Facebook. "Ministry of Health (MoH) South Sudan." [<https://www.facebook.com/moh.gov.ss/>]. Accessed 09 March 2021

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. In light of the present pandemic, COVID-19, the senior leaders have been regularly addressing the public and sharing information about the situation in the country and also safety measures, protocols in order to fight the pandemic.[1] The leaders leading the fight against the pandemic are the Vice- President and the Health Minister of South Sudan. Updates from the Health Minister are also seen on the Health Ministry Twitter and Facebook accounts.[2,3] There has been no misinformation or disinformation from these leaders.[1,2,3]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021

[2] Twitter. "Ministry of Health South Sudan." [<https://twitter.com/mohsouthsudan?lang=en>]. Accessed 09 March 2021.

[3] Facebook. "Ministry of Health (MoH) South Sudan." [<https://www.facebook.com/moh.gov.ss/>]. Accessed 09 March 2021

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 7.98

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: 33.46

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: 9

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: 5

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that in the past year, the country has issued a restriction, without international/bilateral support, on the export/import of medical goods (e.g. medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak. No evidence is found on the Ministry of Health website or the official website of the government of South Sudan [1,2] No evidence of any restrictions on trade is found under the COVID-19 Temporary Trade Measures during the current pandemic under International Trade Center Website [3]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 09 March 2021

[3] International Trade Center. Market Access Map.'Covid-19 Temporary Trade Measures'. [<https://www.macmap.org/covid19>]. Accessed 09 March 2021

3.7.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that in the past year, the country has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak. No evidence is found on the Ministry of Health website or the official website of the government of South Sudan [1,2] No evidence of any restrictions on trade is found under the COVID-19 Temporary Trade Measures during the current pandemic under International Trade Center Website [3]

[1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 09 March 2021

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 09 March 2021

[3] International Trade Center. Market Access Map.'Covid-19 Temporary Trade Measures'. [<https://www.macmap.org/covid19>]. Accessed 09 March 2021

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0, No = 1

Current Year Score: 0

In the past year, South Sudan has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. This measure has been taken in light of the present Covid-19 pandemic by the Government of South Sudan, soon after the first case of the virus was reported in the country. South Sudan had imposed travel restrictions on 68 countries and one territory that reported local transmission of Covid-19. All citizens of the affected countries were barred from entering the country. [1,2]

[1] abcNews. 06 April 2020. 'South Sudan 51st of 54 African nations to report virus case'[<https://abcnews.go.com/International/wireStory/south-sudan-1st-virus-case-51st-country-africa-69983626>] Accessed 09 March 2021

[2] Xinhuanet.Africa.13 March 2020. 'South Sudan imposes travel ban on 68 countries affected by Coronavirus'. [http://www.xinhuanet.com/english/2020-03/13/c_138875145.htm] Accessed 09 March 2021

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 1.52

2011

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 121.78

2011

WHO; national sources

4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Republic of South Sudan has a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, states that the health workforce capacity of South Sudan is very low and there is no public workforce strategy in place. There are only 18 field epidemiologists, most of which are employees of the NGO/UN sectors because the Ministry of Health does not have a epidemiologist training program. South Sudan previously had a field epidemiology training program with the US Centres for Disease Control and Prevention (CDC), but it ended in 2013. The JEE also mentions three public universities with medical training, two universities for public health officers, and some training available for nurses, laboratory assistants and animal/livestock professionals. [1] The Ministry of Health of the Republic of South Sudan's (MoH) Health Sector Development Plan 2012-2016 mentions that as of January 2012, there are no laws on workforce development. However, enhancing human resources for health, particularly identifying gaps in the health workforce is listed as a priority programme area. [2] There is not an updated version of South Sudan's Health Sector Development plan available on the Ministry of Health or affiliated websites. [3,4] The Directorate of Medical Training and Professional Development of the MoH is responsible for workforce development. The MoH website describes its responsibilities including formulation of training policies and guidelines, but does not describe a coherent workforce development plan. It also describes that South Sudan is in a human resources for health crisis and there are significant staffing challenges particularly in rural areas. [5] There is no current website for the Ministry of Labour, Public Service and Human Resource Development, but there is a link to an archived website dated 12 April 2012. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 09 March 2021.

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 09 March 2021

[3] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 09 March 2021.

[4] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 09 March 2021

[5] Republic of South Sudan. Ministry of Health. "Medical Training and Professional Development."

[https://moh.gov.ss/medical_training_and_professional_development.php]. Accessed 09 March 2021

[6] Government of the Republic of South Sudan. "Labour and Public Service."

[<https://swap.stanford.edu/20120412123704/http%3A//www.goss-online.org/magnoliaPublic/en/ministries/Labour.html>].

Accessed 09 March 2021

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 75.77

2005-2015

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 evidence that the Republic of South Sudan has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located within the country. According to a 20 December 2018 World Health Organisation (WHO) article, a multipurpose Infectious Disease Unit was opened by the WHO and the Ministry of Health of South Sudan. It is a 24-bed unit, "to safely isolate and care for patients with highly infectious diseases including those with suspected Ebola Virus Disease (EVD) while they await laboratory confirmation". [1] The Ministry of Health and South Sudan Health Information Dashboard do not mention any biocontainment, quarantine, or isolation capabilities. [2,3] It is of note that hospitals and medical facilities are often the target of violence and looting and therefore there are a very limited number of functioning hospitals in the country. [4] China Friendship Hospital, a Chinese hospital in Juba is a private hospital, provides many services for non-communicable diseases and complex medical cases, but there is no mention of biocontainment capabilities of any kind. [5] Doctors Without Borders (MSF) has a hospital in Aweil, although it is unclear if it is the same Aweil Civil Hospital and there is no indication it has biocontainment facilities. [6] Cordaid has a project with Bentiu State Hospital, which was greatly impacted by the violence, but they do not mention biocontainment capacities. [7] The Juba Teaching Hospital is the only referral hospital in South Sudan, but there is no information that it has biocontainment facilities. [8] There is no information about biocontainment capabilities of the Malakal Teaching Hospital. [9] In light of the COVID-19 pandemic the WHO in collaboration with the Ministry of Health and other Humanitarian Aid organizations have helped step up isolation facilities throughout the country. [10]

[1] World Health Organisation (WHO). 20 December 2018. "A new multipurpose Infectious Disease Unit opens in Juba, South Sudan." [<https://www.afro.who.int/news/new-multipurpose-infectious-disease-unit-opens-juba-south-sudan>]. Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 10 March 2021

[3] Republic of South Sudan. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 10 March 2021

[4] Lynch, Justin. Al Jazeera. 27 March 2016. "Hospitals Targeted Across South Sudan."

[<https://www.aljazeera.com/indepth/features/2016/03/hospitals-targeted-south-sudan-160304160408373.html>]. Accessed

10 March 2021.

[5] Elamu, Denis. Xinhua Net News. 19 September 2017. "Chinese Hospital Wins Popularity in Conflict-Torn South Sudan." [http://www.xinhuanet.com//english/2017-09/19/c_136619165.htm]. Accessed 10 March 2021.

[6] Medium, Doctors Without Borders. 24 June 2016. "One Day in Aweil: An MSF Team Portrait." [https://medium.com/msf-alert/one-day-in-aweil-an-msf-team-portrait-bb0fa1f95755]. Accessed 10 March 2021.

[7] Cordaid. 17 November 2016. "War-Affected Bentiu State Hospital Reopens." [https://www.cordaid.org/en/news/war-affected-bentiu-state-hospital-reopens/] Accessed 10 March 2021.

[8] Real Medicine Foundation. "Juba Teaching Hospital 2013-Present" [https://www.realmedicinefoundation.org/our-work/countries/south-sudan/initiatives/juba-teaching-hospital-support/]. Accessed 10 March 2021

[9] International Organisation for Migration (IOM). February 2018. "Malakal Combined Assessment, IOM Displacement Tracking Matrix." [https://www.iom.int/sites/default/files/dtm/south_sudan_dtm_201802.pdf]. Accessed 10 March 2021

[10] World Health Organization(WHO). 17 August 2020. South Sudan. South Sudan strengthens the capacity of health care workers to improve COVID-19 case management.[https://www.afro.who.int/news/south-sudan-strengthens-capacity-health-care-workers-improve-covid-19-case-management] Accessed 10 March 2021

4.1.2c

Does the country meet one of the following criteria?

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

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years or that it has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years.

Efforts to expand isolation capacity have been driven by international organizations. In light of the COVID-19 pandemic the WHO in collaboration with the Ministry of Health and other Humanitarian Aid organizations have helped step up isolation facilities throughout the country but it is not clear if these can be used to other infectious diseases in the future.[1] According to a 20 December 2018 World Health Organisation (WHO) article, a multipurpose Infectious Disease Unit was opened by the WHO and the Ministry of Health of South Sudan. It is a 24-bed unit, "to safely isolate and care for patients with highly infectious diseases including those with suspected Ebola Virus Disease (EVD) while they await laboratory confirmation".[2] There is no further evidence on quarantine and isolation facilities or 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 under the Ministry of Health ,under the official website of the government of South Sudan or in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE) of the Republic of South Sudan. [3,4,5]

[1] World Health Organization(WHO). 17 August 2020. South Sudan. South Sudan strengthens the capacity of health care workers to improve COVID-19 case management.[https://www.afro.who.int/news/south-sudan-strengthens-capacity-health-care-workers-improve-covid-19-case-management] Accessed 04 May 2021

[2] World Health Organisation (WHO). 20 December 2018. "A new multipurpose Infectious Disease Unit opens in Juba, South Sudan." [https://www.afro.who.int/news/new-multipurpose-infectious-disease-unit-opens-juba-south-sudan]. Accessed 04 May 2021

[3] Republic of South Sudan. Ministry of Health. [https://moh.gov.ss]. Accessed 04 May 2021

- [4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 04 May 2021
- [5] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 May 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 evidence of a national procurement protocol in place that 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. According to the Ministry of Health (MoH) Health Sector Development Plan 2012-2016, the MoH uses the World Bank procurement procedures for medical supplies. There is no updated version of the document. [1] The MoH Policy Framework 2013-2016, published February 2013 and the South Sudan National Master Plan (2016-2020) for Neglected Tropical Diseases, published 2015-2016 only mention that procurement procedures for the MoH are weak and should be improved. [2,3] This is not described on the MoH website. [4] The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, mentions that South Sudan is in need of developing "policy and standards for supply chain and procurement processes for acquiring necessary equipment, reagents and consumables." [5] The Ministry of Livestock, Animal Resources and Fisheries does not have a website. [6] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [7]

- [1] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021
- [2] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021
- [3] Republic of South Sudan. Ministry of Health of the Republic of South Sudan. 2015-2016. "South Sudan National Master Plan (2016-2020) For Neglected Tropical Diseases." [https://www.malariaconsortium.org/gallery-file/06210257-90/south_sudan_master_plan_20162020.pdf]. Accessed 10 March 2021
- [4] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 10 March 2021.
- [5] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021.

[6] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

[7] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 10 March 2021.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 2

There is evidence that the country has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, mentions that South Sudan only has limited supplies of Medical Countermeasures and those available are mainly for communicable diseases like measles and meningitis. It does not mention a stockpile of medical supplies (equipment, PPE).[1] There is some evidence that the country has PPE for use that was kept in stock as part of The Ebola Disease Response plan, however it is not clear if the country maintains a sufficient stockpile of PPE for use during any public health emergency. [2] No evidence is found under the Ministry of Health or the official website for the government of South Sudan.[3,4] During the COVID-19, it came to light that South Sudan was one of the countries in the world at highest risk due to limited medical supplies, with only 4 ventilators and limited other medical supplies.[5] The WHO and other humanitarian aid organizations have come to their rescue to combat the present pandemic.[6,7]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 May 2021

[2] Republic of South Sudan. Ministry of Health. 30 July 2019. Weekly Update on Ebola Virus Disease (EVD) Preparedness Activities in South Sudan. [https://www.afro.who.int/sites/default/files/2019-07/Weekly%20Update%20on%20Ebola%20Virus%20Disease%20EVD%29%20Preparedness_%2346.pdf] Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 10 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

[5] International Rescue Committee. 02 June 2020. COVID-19 cases spike in South Sudan; IRC calls for end to political standoff inhibiting country's response. [<https://www.rescue.org/press-release/covid-19-cases-spike-south-sudan-irc-calls-end-political-standoff-inhibiting-countrys>] Accessed 10 March 2021

[6] World Health Organization(WHO).09 January 2021. 'Protecting health workers from COVID-19'. [<https://www.afro.who.int/news/protecting-health-workers-covid-19>] Accessed 10 March 2021

[7] United Nations Development Programme(UNDP).14 June 2020. 'UNDP hands over 10 ventilators and 3000 Xpert Xpress COVID-19 test kits to the Ministry of Health'. [https://www.ss.undp.org/content/south_sudan/en/home/presscenter/pressreleases/2020/hands_over_10 Ventilators_3000_COVID19_testkits_to_MOH.html] Accessed 10 March 2021

4.2.2b

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

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

Current Year Score: 0

There is no evidence that the country has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, mentions that there is a frequent stock out of laboratory commodities. Most of the state laboratories do not have the equipment to test, and there is a lack of equipment and reagents for other tests.[1] No evidence of a stockpile of laboratory supplies is found under the Ministry of Health or the official website for the government of South Sudan.[2,3] The country has a National Public Health Laboratory according to the JEE but the laboratory does not have a website [1]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021.

[2] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 10 March 2021

[3] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. There is no evidence that the country has a stockpile of medical supplies or laboratory supplies for national use during a public health emergency. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, mentions that South Sudan only has limited supplies of Medical Countermeasures and those available are mainly for communicable diseases like measles and meningitis. It does not mention a stockpile of medical supplies (equipment, PPE).It mentions that there is a frequent stock out of laboratory commodities. Most of the state laboratories do not have the equipment to test, and there is a lack of equipment and reagents for other tests.[1] No evidence of a stockpile of medical supplies and laboratory supplies or any evidence of an annual review of the supplies is found under the Ministry of Health or the official website for the government of South Sudan.[2,3] The country has a National Public Health Laboratory according to the JEE but the laboratory does not have a website [1]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 04 May 2021

[2] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 04 May 2021

[3] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 04 May 2021

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

There is no 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 nor is there any evidence of a plan/mechanism to procure medical supplies for national use during a public health emergency. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, 'South Sudan does not have a national framework for the transfer of medical countermeasures, public health and medical personnel, despite a history of several public health emergencies of international concern (PHEIC) ranging from infectious disease outbreaks to armed conflict. During such emergencies, response is largely supported by relevant government agencies and international partners with limited coordination from government. The country has yet to sign up for, and explore available regional and international agreements for the sending and receiving of medical countermeasures'. [1,2] 'There are no agreements with international manufacturers of medical countermeasures, but an agreement with GAVI on procurement of vaccines exists.' It is not clear if the agreement with GAVI can be used to procure vaccines during public health emergencies. [1,3] There is no evidence for production or procurement of other medical supplies such as medical equipments or PPE during public health emergencies. [1,2] No further evidence is seen under the Ministry of Health or the official website of the government of South Sudan. [4,5,6] As evidenced in the present COVID-19 pandemic, South Sudan relies heavily on the WHO or humanitarian aid organizations during public health emergencies. [2,7]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] United Nations Development Programme (UNDP). 14 June 2020. 'UNDP hands over 10 ventilators and 3000 Xpert Xpress COVID-19 test kits to the Ministry of Health'. [https://www.ss.undp.org/content/south_sudan/en/home/presscenter/pressreleases/2020/hands_over_10 Ventilators_3000_COVID19_testkits_to_MOH.html] Accessed 10 March 2021

[3] GAVI. The Vaccine Alliance. South Sudan. [<https://www.gavi.org/programmes-impact/country-hub/africa/south-sudan>] Accessed 10 March 2021

[4] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 10 March 2021

[5] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 10 March 2021

[6] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

[7] World Health Organization (WHO). 09 January 2021. 'Protecting health workers from COVID-19'. [<https://www.afro.who.int/news/protecting-health-workers-covid-19>] Accessed 10 March 2021

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 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 nor is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, 'there is no in-country production nor procurement processes for acquiring the necessary media and reagents for performance of core laboratory tests, the country is heavily dependent on donors to access all laboratory supplies and there are frequent stock outs of media and reagents for the performance of core laboratory tests.'^[1] No evidence is seen under the Ministry of Health or the official website of the government [2,3,4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 10 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that South Sudan has a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics and diagnostics). According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities (JEE), conducted 15 to 20 October 2017, 'South Sudan does not have a national framework for the transfer of medical countermeasures, despite a history of several public health emergencies of international concern (PHEICs) ranging from infectious disease outbreaks to armed conflict. During such emergencies, response is largely supported by relevant government agencies and international partners with limited coordination from government. This leads to duplication of efforts sometimes, as there are no proper coordination and communication mechanisms in place. The report further recommends a plan to outline system for sending

and receiving medical countermeasure'. [1] No such guidelines or programs are found under the Ministry of Health website or the official website of the government of South Sudan. [2,3,4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Health. "Policy, Planning and Budgeting." [<https://moh.gov.ss>]. Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 10 March 2021

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

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

4.3.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the Republic of South Sudan has a public plan in place to receive health personnel from other countries to respond to a public health emergency. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, states South Sudan, "has yet to sign up for, and explore available regional and international agreements for the sending and receiving of medical countermeasures and personnel deployment, although it has received and deployed personnel for various responses under the surge support plan of various partners like WHO, UNICEF and International Organization for Migration (IOM)." [1] Such a plan is not discussed on the Ministry of Health (MoH) website or in the MoH "Health Sector Development Plan 2012-2016." [2,3,4] There is no current website for the Ministry of Defence and Veterans Affairs for South Sudan, but there is a link to an archived version of the website. [5] While there is no website for the Ministry of Humanitarian Affairs and Disaster Management, there is a Strategic Plan for the Ministry of Humanitarian Affairs and Disaster Management 2018-2020. There is no mention of such a personnel plan in this plan. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 10 March 2021

[4] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021

[5] Government of the Republic of South Sudan. "SPLA and Veteran Affairs." [<https://swap.stanford.edu/20110628170806/http://www.goss-online.org/magnoliaPublic/en/ministries/splaaffairs.html>]. Accessed 10 March 2021.

[6] Republic of South Sudan. Ministry of Humanitarian Affairs and Disaster Management and the Partners for Resilience. "MHADM Strategic Plan 2018-2020."

[<https://www.partnersforresilience.nl/downloads/files/Strategic%20Plan%20MHADM%20Final%20PFR%20Sudan%202018.pdf>]. Accessed 10 March 2021

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: 4

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 19.4

2010

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: 33.73

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that the government of South Sudan has issued legislation, a policy or a public statement committing to providing prioritized health care services to healthcare workers who become sick as a result of responding to a public health emergency. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, does not mention such a policy. [1] There is no mention of such a policy by Doctors Without Borders, one of the most active international public health organisations working in South Sudan. [2] There is no mention of such a commitment on the Ministry of Health (MoH) website. [3] There is no mention of such a commitment in the MoH Policy Framework 2013-2016 or Health Sector Development Plan 2012-2016. [4,5] There is no mention of such a commitment in the Ministry of Humanitarian Assistance and Disaster Management Strategic Plan 2018-2020. [6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Doctors Without Borders (MSF). "South Sudan."

[<https://www.doctorswithoutborders.org/search?keyword=south%20sudan%20health%20care%20workers&f%5B0%5D=countries%3A48>]. Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021

[4] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021

[5] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021

[6] Ministry of Humanitarian Affairs and Disaster Management and the Partners for Resilience. 2018. "MHADM Strategic Plan 2018-2020." [<https://www.partnersforresilience.nl/downloads/files/Strategic%20Plan%20MHADM%20Final%20PfR%20Sudan%202018.pdf>]. Accessed 10 March 2021

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has a system in place for public health officials and healthcare workers to communicate during a public health emergency as the functional capacity of the communication plan is limited. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, mentions a National Rapid Response Team (RRT) to respond to disease outbreaks, but does not discuss a communication mechanism within that team or across regional RRTs. The Emergency Operations Center (EOC) has established coordination mechanisms, but there are problems with capacity gaps with ad hoc team members regarding public communication, coordination, and information sharing. [1] The Ministry of Humanitarian Assistance and Disaster Management Strategic Plan 2018-2020 discusses improving communications, but does not discuss a communications strategy for public health emergencies specifically. [2] Neither the Ministry of Health Policy Framework 2013-2016 nor the Health Sector Development Plan 2012-2016 discuss a communication mechanism for public health emergencies. [3,4] There is no discussion of this topic or the Public Health Emergency Operations Center (PHEOC) is found on the Ministry of Health of South Sudan website or the official website of the government of South Sudan. [5,6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Humanitarian Affairs and Disaster Management and the Partners for Resilience. 2018. "MHADM Strategic Plan 2018-2020."

[<https://www.partnersforresilience.nl/downloads/files/Strategic%20Plan%20MHADM%20Final%20PFR%20Sudan%202018.pdf>]. Accessed 10 March 2021.

[3] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021

[4] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021.

[5] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

[6] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan has a system in place for public health officials and healthcare workers to communicate during a public health emergency that includes workers in both the public and private sector. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, mentions a National Rapid Response Team (RRT) to respond to disease outbreaks, but does not discuss a communication mechanism within that team or across regional RRTs. The Emergency Operations Center (EOC) has established coordination mechanisms, but there are problems with capacity gaps with ad hoc team members regarding public communication, coordination, and information sharing. [1] The Ministry of Humanitarian Assistance and Disaster Management Strategic Plan 2018-2020 discusses improving communications, but does not discuss a communications

strategy for public health emergencies specifically. [2] Neither the Ministry of Health Policy Framework 2013-2016 nor the Health Sector Development Plan 2012-2016 discuss a communication mechanism for public health emergencies. [3,4] There is no discussion of this topic or the Public Health Emergency Operations Center (PHEOC) is found on the Ministry of Health of South Sudan website or the official website of the government of South Sudan. [5,6]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Humanitarian Affairs and Disaster Management and the Partners for Resilience. 2018. "MHADM Strategic Plan 2018-2020."

[<https://www.partnersforresilience.nl/downloads/files/Strategic%20Plan%20MHADM%20Final%20PFR%20S-Sudan%202018.pdf>]. Accessed 10 March 2021.

[3] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021

[4] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021.

[5] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

[6] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that South Sudan's national public health system is monitoring for and tracking the number of health care associated infections (HCAI) that take place in healthcare facilities. HCAI are not discussed in either the Ministry of Health's (MoH) Policy Framework 2013-2016 or Health Sector Development Plan 2012-2016. [1,2] HCAI are not mentioned on the Ministry of Health website. [3,4] The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, says, "there is no national plan for the detection and reporting of AMR pathogens and no Health Care Associated Infection (HCAI) sentinel sites have been set up." [5] South Sudan does not have a national AMR plan on the World Health Organisation (WHO) Library of National Action Plans website. [6] In light of the current covid-19 pandemic, the government websites do not have evidence of a public system to monitor or track the number of health care workers who have been affected by Covid-19 through their work.[3,4]

[1] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021.

[2] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021

[3] Republic of South Sudan.Ministry of Health. [<https://moh.gov.ss>]. Accessed 05 May 2021.

[4] Republic of South Sudan. Ministry of Health. South Sudan Health Information Dashboard. "Document Library: Policy Documents." [<https://www.southsudanhealth.info/library.php>]. Accessed 05 May 2021

[5] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021.

[6] World Health Organisation (WHO). "Library of National Action Plans." [<https://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 10 March 2021

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that South Sudan has a national requirement for ethical review from the Research Ethics Review Board before beginning a clinical trial. 'In 2007, a Bill for establishment of National Research Council of South Sudan was drafted and submitted to the Ministry of Cabinet Affairs for endorsement and presentation to parliament for formal legislation, but final step has not yet been taken to establish the National Research Council. However, due to the urgent need to assure quality of research in the health sector, the Ministry of Health (MOH) decided to constitute the Research Ethics Review Board (RERB) during the same period to review and approve all research conducted in health sector. Ever-since the establishment of the MOH-RERB in 2006, more than 300 health research proposals have been reviewed for scientific and ethical soundness and cleared for implementation'. 'The first level of regulating research involving humans as research participants shall be done by research technical committees or peer review mechanisms at the organizational level. The second level shall be done by the institutional Research Ethics Committees (RECs) or Ethics Review Boards (ERBs) which are formally accredited by the South Sudan National Research Council (SSNRC). The third level of research regulation shall be the SSNRC which is the supreme body legally mandated to oversee research and accredit all RECs/ERBs in the country. In this regulatory process, all other national and professional agencies that regulate research in specific areas such as the national bureaus for statistics, standards, drugs and food, blood safety, and laboratory services shall liaise with the SSNRC. The SSNRC shall issue the final authorization for all research approved by the accredited institutional RECs/RERBs and the other regulatory agencies for specific products or items or devices in South Sudan'.^[1]

[1] Republic of South Sudan. Ministry of Health. Research Ethics Review Board. 'National Guidelines for Research Involving Humans in the Republic of South Sudan'. [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/National%20Guidelines%20for%20Research%20Involving%20Human%20in%20South%20Sudan.pdf] Accessed 10 March 2021

4.7.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that South Sudan has an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. Although there is evidence that all researches involving clinical trials need the clearance of the Research Ethics Review Board and the National Drug and Food Control Authority of South Sudan, there is not enough evidence that South Sudan has an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. 'The National Drug and Food Control Authority (NDFCA) is responsible for regulating safety and quality and efficacy and use of food items such as nutritional supplementations as well as medicinal drugs and drug-related products such as vaccines. The roles of NDFCA in clinical trials are to review the research protocol and issue a certificate of clearance to a researcher who intends to carry out clinical trials on a drug, device, or food items specified in the certificate. No person shall carry out trials on any drug, device or food item in the country without certification from NDFCA. It is the responsibility of the sponsor and principal investigator to obtain clearance for any experimental drug, device and food regardless of whether it was previously licensed for use in humans or not. Prior to submitting the protocol to the applicable REC/RERB, the principal investigators would first need to submit to the NDFCA to evaluate its safety and get the authorization letter for use of the trial drugs or devices or foods in country which shall be appended to the protocol submitted to RERB for ethics review and approval'. [1] No further evidence is found under the National Drug and Food Control Authority under the Ministry of Health. [2] There is no separate website for Research Ethics Review Board or the National Research Council. There is no further evidence on the website of the Ministry of Health. [3]

- [1] Republic of South Sudan. Ministry of Health. Research Ethics Review Board. 'National Guidelines for Research Involving Humans in the Republic of South Sudan'. [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/National%20Guidelines%20for%20Research%20Involving%20Human%20in%20South%20%20Sudan.pdf] Accessed 10 March 2021
- [2] Republic of South Sudan. Ministry of Health. Drugs and Food Control Authority. [https://moh.gov.ss/drugs_&_food_control_authority.php] Accessed 10 March 2021.
- [3] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1, No = 0

Current Year Score: 1

There is a government agency responsible for approving new medical countermeasures (MCM) for humans in South Sudan. 'The National Drug and Food Control Authority (NDFCA) is responsible for regulating safety and quality and efficacy and use of food items such as nutritional supplementations as well as medicinal drugs and drug-related products such as vaccines. The roles of NDFCA in clinical trials are to review the research protocol and issue a certificate of clearance to a researcher who intends to carry out clinical trials on a drug, device, or food items specified in the certificate. No person shall carry out trials on any drug, device or food item in the country without certification from NDFCA. It is the responsibility of the sponsor and principal investigator to obtain clearance for any experimental drug, device and food regardless of whether it was previously licensed for use in humans or not. Prior to submitting the protocol to the applicable REC/RERB, the principal

investigators would first need to submit to the NDFCA to evaluate its safety and get the authorization letter for use of the trial drugs or devices or foods in country which shall be appended to the protocol submitted to RERB for ethics review and approval. The NDFCA shall verify the continued use and eventual disposal of unused trial drug, device, or foodstuff'. [1] There is no further information under the National Drugs and Food Control Authority under the Ministry of Health website. [2]

[1] Republic of South Sudan. Ministry of Health. Research Ethics Review Board. 'National Guidelines for Research Involving Humans in the Republic of South Sudan'. [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/National%20Guidelines%20for%20Research%20Involving%20Human%20in%20South%20%20Sudan.pdf] Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Health. Drugs and Food Control Authority. [https://moh.gov.ss/drugs_&_food_control_authority.php] Accessed 10 March 2021

4.7.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that South Sudan has an expedited process for approving medical countermeasures for human use during public health emergencies. National Drug and Food Control Authority (NDFCA) is the agency responsible for regulation of medical countermeasures for human use in South Sudan.'The National Drug and Food Control Authority (NDFCA) is responsible for regulating safety and quality and efficacy and use of food items such as nutritional supplementations as well as medicinal drugs and drug-related products such as vaccines'. There is no mention of an expedited process to approve medical countermeasures for use in public health emergencies[1] No further evidence is found under the National Drug and Food Control Authority under the Ministry of Health. [2] There is no separate website for Research Ethics Review Board or the National Research Council. There is no separate website for Research Ethics Review Board or the National Research Council. There is no further evidence on the website of the Ministry of Health. [3]

[1] Republic of South Sudan. Ministry of Health. Research Ethics Review Board. 'National Guidelines for Research Involving Humans in the Republic of South Sudan'. [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/National%20Guidelines%20for%20Research%20Involving%20Human%20in%20South%20%20Sudan.pdf] Accessed 10 March 2021

[2] Republic of South Sudan. Ministry of Health. Drugs and Food Control Authority. [https://moh.gov.ss/drugs_&_food_control_authority.php] Accessed 10 March 2021.

[3] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence the Republic of South Sudan has a standalone national disaster risk reduction strategy for pandemics and there is limited evidence South Sudan has integrated pandemics into their national risk reduction strategy. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan (JEE), conducted 15-20 October 2017, South Sudan does not have a single, standalone national emergency preparedness and response plan to address all potential hazards. However, some response plans have been developed for specific purposes. Furthermore, there are "case management guidelines for the epidemic prone diseases and there is continuous capacity building for identified ad hoc Emergency Operations Center(EOC)personnel." Further details about which diseases have guidelines and if they constitute pandemics are not included. [1] According to a 26 July 2018, World Health Organisation report, South Sudan is actively seeking to improve their preparedness and response capabilities in order to meet the JEE recommendations, specifically for Ebola, a disease with pandemic potential. South Sudan organised a three-day workshop to improve risk communication and community engagement in addressing Ebola. There is no mention of other pandemic diseases or a more general national risk reduction strategy.[2] There is evidence that Sudan has developed a National Action Plan for Health Security 2020-2024 but further details on it is not available [3] There is no further information on the Ministry of Health of the Republic of South Sudan website. [4]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] World Health Organisation (WHO). 26 July 2018. "South Sudan Strengthens Preparedness and Response for Ebola and other deadly diseases through Emergency Risk Communication." [<https://www.afro.who.int/news/south-sudan-strengthens-preparedness-and-response-ebola-and-other-deadly-diseases-through>]. Accessed 10 March 2021

[3] ANADOLU AGENCY. 11 December 2020. 'South Sudan launches Action Plan for the health care system'. [<https://www.aa.com.tr/en/africa/south-sudan-launches-action-plan-for-health-care-system/2073184>] Accessed 10 March 2021

[4] Ministry of Health of the Republic of South Sudan. [<https://moh.gov.ss>]. Accessed 10 March 2021

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0

There is insufficient evidence that South Sudan has agreements or memorandums of understanding (MoUs) with neighbouring countries about public health emergencies. According to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15 to 20 October 2017, South Sudan has a dearth of MoUs and agreements with neighbouring countries on most public health issues. [1] According to a 7 September 2018 South Sudan- Crisis Fact Sheet #11 FY 2018, on 1 August 2018, the Government of the Republic of South Sudan (GoRSS) and the Government of Sudan signed a six-month extension of the 2014 Memorandum of Understanding, to extend the humanitarian corridor between the countries and "allow additional overland deliveries of emergency food assistance from Sudan to Upper Nile State's Renk town, Unity State's Bentiu town, and Northern Bahr el Ghazal State's Awel town in South Sudan." However, this agreement does not mention public health emergencies specifically. [2] There are numerous examples of collaboration between South Sudan and international organisations such as Emergency Plan of Action with International Federation of Red Cross and Red Crescent Societies to address disease outbreak as well as with the Food and Agriculture Organisation of the United Nations (FAO), which is engaged in a multi-year Emergency Livelihoods Response Plan with vaccination and treatment of livestock and training for animal health workers. [3,4] However, these documents do not discuss agreements with neighbouring countries. The Ministry of Health (MoH) of South Sudan website only mentions international organisation partners, such as the World Health Organisation (WHO), but does not mention agreements or MoUs with neighbouring countries. [5] There is no mention in either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 or the Policy Framework 2013-2016. [6,7] South Sudan is part of a regional agreement through their membership in the World Organisation for Animal Health (OIE)'s Sub-Regional Representation for East Africa (from an agreement signed in 2009 in Nairobi, Kenya), although this agreement is not for public health emergencies specifically. [8]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] United States Agency for International Development (USAID). 7 September 2018. "South Sudan-- Crisis: Fact Sheet #11, Fiscal Year (FY) 2018." [https://www.usaid.gov/sites/default/files/documents/1866/south_sudan_cr_fs11_09-07-2018.pdf]. Accessed 10 March 2021

[3] International Federation of Red Cross and Red Crescent Societies. 1 August 2016. "Emergency Plan of Action (EPoA) South

Sudan: Cholera Outbreak." [<https://reliefweb.int/report/south-sudan/south-sudan-cholera-outbreak-emergency-plan-action-epoa-dref-operation-n-mdrss005>]. Accessed 10 March 2021.

[4] Food and Agriculture Organisation of the United Nations (FAO). "South Sudan Humanitarian Response Plan." [<http://www.fao.org/3/CA3217EN/ca3217en.pdf>]. Accessed 10 March 2021

[5] Ministry of Health of the Republic of South Sudan. "Health Partners." [<https://moh.gov.ss>]. Accessed 10 March 2021

[6] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021

[7] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016." [https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021

[8] World Organisation for Animal Health (OIE). "Sub-Regional Representation for Eastern Africa." [http://www.rr-africa.oie.int/en/RR/en_organisation_ea.html]. Accessed 10 March 2021

5.2.1b

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

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

Current Year Score: 0

There is insufficient evidence suggesting South Sudan has agreements or memorandums of understanding (MoUs) with neighbouring countries regarding animal health emergencies. The World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15 to 20 October 2017, notes that regarding animal health and Integrated Disease Surveillance and Response (IDSR) reporting mechanisms, the Ministry of Livestock, Animal Resources and Fisheries of South Sudan and the Ministry of Agriculture and Animal Industry and Fisheries of Uganda have an MoU. [1] However, the details and text of this MoU are not publicly available. While it is clear that South Sudan is actively engaged with the Food and Agriculture Organisation of the United Nations (FAO) through a multi-year Emergency Livelihoods Response Plan with vaccination and treatment of livestock and training for animal health workers, it is unclear if these agreements involve MoUs with neighbouring countries as well. [2] Additionally, South Sudan is part of a regional agreement through their membership in the World Organisation for Animal Health (OIE)'s Sub-Regional Representation for East Africa (from an agreement signed in 2009 in Nairobi, Kenya), although details of specific initiatives regarding animal health emergencies and neighbouring countries are unclear. [3] South Sudan is also a member of the Pan-African Rabies Control Network, but this does not address animal health emergencies specifically. [4] There is no relevant information on the Ministry of Health (MoH) website or on either the Ministry of Health (MoH)'s Health Sector Development Plan 2012-2016 or the Policy Framework 2013-2016. [5,6,7] There are no current websites for the Ministry of Livestock, Animal Resources and Fisheries or the Ministry of Wildlife Conservation and Tourism. [8]

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] Food and Agriculture Organisation of the United Nations (FAO). "South Sudan Humanitarian Response Plan." [<http://www.fao.org/3/CA3217EN/ca3217en.pdf>]. Accessed 10 March 2021.

[3] World Organisation for Animal Health (OIE) Africa. "Regional Programmes and Projects." [http://www.rr-africa.oie.int/en/RP/en_regional_programmes.html]. Accessed 10 March 2021.

[4] Global Alliance for Rabies Control. "About Pan-African Rabies Control Network (PARACON)." [<https://rabiesalliance.org/networks/paracon/about>]. Accessed 10 March 2021

[5] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

[6] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021

[7] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021

[8] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 0

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

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

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

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

Current Year Score: 0

2021

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

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

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

5.4.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2021

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

5.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years. There is no evidence on the Ministry of Health or the Official website of the government of South Sudan

[1,2] There is currently no website for the Ministry of Agriculture and Forestry, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [3]

[1] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan.

[<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 10 March 2021.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 1

There is a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency. South Sudan is an eligible nation for the World Bank's International Development Association funding and therefore is eligible for World Bank's Pandemic Emergency Financing Facility (PEF). [1,2] However, according to the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15 to 20 October 2017, South Sudan should explore accessing funds from international agencies such as the World Bank and regional bodies. [3] The Ministry of Health (MoH) Health Sector Development Plan (2012-2016) mentions that health sector funding is over reliant on state income from oil and notes MoH gets funding for basic health services from the World Bank, United States Agency for International Development (USAID), and Health Pooled Funds Mechanism from Department for International Development (DFID) of the United Kingdom. There is no mention of funding mechanisms for public health emergencies specifically. [4] The February 2013 MoH Policy Framework 2013-2016 does not discuss funding mechanisms for public health emergencies from the World Bank or elsewhere. [5] The most recently available budgeting guidelines for the South Sudan MoH, "Health Sector Planning, Budgeting and Reporting Guidelines for Fiscal Year 2014/15" does not discuss public health emergency funding. [6] The only publicly available version of a MoH budget is the draft budget for Fiscal Year 2013/2014 and it does not include public health emergencies. [7] The MoH website does not include information on such financing. [8]

[1] International Development Association of the World Bank Group. "IDA Borrowing Countries."

[<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 10 March 2021.

[2]. Pandemic Emergency Financing Facility. "Operational Brief For Eligible Countries".

[<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed 10 March 2021

[3] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021.

[4] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021

[5] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021.

[6] Republic of South Sudan. Ministry of Health. June 2014. "State and Local Government Health Sector Planning, Budgeting and Reporting Guidelines for Fiscal Year 2014/15."

[<https://www.southsudanhealth.info/PublicData/Library/Planning%20and%20Budgeting/State%20and%20County%20Health%20Sector%20Planning%20and%20Budgeting%20Guidelines%202014-15.pdf>]. Accessed 10 March 2021.

[7] Republic of South Sudan. Ministry of Health. "Draft Budget Estimates-- FY 2013/14."

[https://www.southsudanhealth.info/PublicData/Library/Planning%20and%20Budgeting/Health%20-%20draft%20budget%20estimates%20FY2013_14.pdf]. Accessed 10 March 2021

[8] Government of the Republic of South Sudan. [<http://www.goss-online.org/>]. Accessed 10 March 2021.

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

5.5.4a

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

- Support other countries to improve capacity to address epidemic threats by providing financing or support?

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

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

Current Year Score: 0

There is no evidence that senior leaders (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 or to improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. No evidence is found under the Ministry of Health or the official website of the government of South Sudan.[1,2] . There is currently no website for the Ministry of Foreign Affairs of South Sudan. [2] No evidence is found on the World Health Organization country page for South Sudan. [3]

[1] Republic of South Sudan. Ministry of Health. [https://moh.gov.ss]. Accessed 10 March 2021.

[2] Government of the Republic of South Sudan. [http://www.goss-online.org/index.html]. Accessed 10 March 2021

[3] World Health Organization.South Sudan.[https://www.afro.who.int/countries/south-sudan] Accessed 10 March 2021

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 no evidence that the country has, in the past three years provided other countries with financing or technical support to improve capacity to address epidemic threats but there is evidence South Sudan has requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats. There is evidence via the Global Health Security Funding Tracker that South Sudan has received and invested donor funds by several international organizations. The tracker notes that South Sudan has received funding from multiple donors to enhance their capacity on preparedness, emergency response operations, real time surveillance, zoonotic diseases among others. Some specific examples are: from Canada for Global Alliance for Vaccines and Immunization(GAVI) between 2014 to 2020, from United States Agency for International Development (USAID) for Challenge Tuberculosis, Global Health Support Initiatives (III), Linkages Across the Continuum of HIV Services for Key Populations Affected by HIV (LINKAGES) Project and Sustaining Health Outcomes through the Private Sector (SHOPS) Plus between 2014 to 2020, from Crown Agents Limited for South Sudan Health Pooled Fund Phase 3 between 2014 to 2020, from International Development Association for South Sudan Provision of Essential Health Services Project between 2014 to 2020, from International Planned Parenthood for Women's Integrated Sexual Health (WISH) 2 between 2014 to 2020 etc. [1] There is no evidence that South Sudan has provided other countries with financing or technical support to improve capacity to address epidemic threats .The World Health Organization does not mention any such public commitments made by South Sudan. [2] In addition, no press releases or policy documents outlining this can be found on their Ministry of Health or the Official website of the government of South Sudan. [3,4] There is currently no website for the Ministry of Foreign Affairs of South Sudan. [4]

[1] Center for Global Health Science and Security of Georgetown University. "Global Health Security Tracking Dashboard." South Sudan.[https://tracking.ghscosting.org/details/1054/recipient] Accessed 05 May 2021

[2] World Health Organization.South Sudan.[https://www.afro.who.int/countries/south-sudan] Accessed 05 May 2021

[3] Republic of South Sudan. Ministry of Health. [https://moh.gov.ss]. Accessed 05 May 2021.

[4] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 05 May 2021

5.5.4c

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

Yes = 1 , No = 0

Current Year Score: 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 plan or policy in South Sudan for sharing genetic data, epidemiological data, clinical specimens and/or isolated specimens with international organisations and/or other countries. No evidence is available via the Ministry of Health or the official website for the government of South Sudan.[1,2] There is evidence of National Public Health Laboratory under the Ministry of Health but the institution does not have a website of its own [1] There is currently no website for the Ministry of Agriculture and Forestry; however, there is an archived version linked from Wikipedia. The archived version of the website does not discuss this topic. [3]

[1] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>]. Accessed 10 March 2021.

[2] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

[3] Republic of South Sudan. Ministry of Agriculture and Forestry of the Republic of South Sudan. [<https://web.archive.org/web/20111215092247/http://www.goss-online.org/magnoliaPublic/en/ministries/Agriculture-and-Forestry.html#projects>]. Accessed 10 March 2021.

5.6.1b

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

Yes = 0 , No = 1

Current Year Score: 1

There is no public evidence that the country has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. While the PIP is not mentioned in the World Health Organisation (WHO) Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan, conducted 15 to 20 October 2017, there is evidence that South Sudan has set up influenza surveillance capacity with the help of the WHO. [1,2] These sites are incorporated into the existing Integrated Disease Surveillance and Response (IDSR) System and the PIP Framework supported the training of health workers running the surveillance sites and testing of samples in the National Public Health Laboratory (NPHL). [3] There is no information about the PIP framework on the Ministry of Health or related websites. [4,5,6,7] NPHL does not have an independent website for more information. There is no information in media sources indicating South Sudan has not complied with the PIP framework.

[1] World Health Organisation (WHO). 15-20 October 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of South Sudan." [<http://apps.who.int/iris/bitstream/handle/10665/260481/WHO-WHE-CPI-REP-2018.4-eng.pdf?sequence=1>]. Accessed 10 March 2021

[2] reliefweb. 20 October 2019. South Sudan. With support from WHO, South Sudan establishes capacities for Ebola, influenza and other infectious disease surveillance. [<https://reliefweb.int/report/south-sudan/support-who-south-sudan-establishes-capacities-ebola-influenza-and-other>] Accessed 10 March 2021

[3] World Health Organisation (WHO). 1 February 2018. "WHO strengthens the country's capacity to detect investigate and respond seasonal and pandemic influenza." [<https://www.afro.who.int/news/south-sudan-strengthens-country-s-capacity-detect-investigate-and-respond-seasonal-and-pandemic>]. Accessed 10 March 2021.

[4] Republic of South Sudan. Ministry of Health. [<https://moh.gov.ss>] Accessed 10 March 2021

[5] Republic of South Sudan. Ministry of Health. February 2013. "Policy Framework 2013-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Ministry%20of%20Health%20Policy%20Framework%202012-16.pdf]. Accessed 10 March 2021

[6] Republic of South Sudan. Ministry of Health. January 2012. "Health Sector Development Plan 2012-2016."

[https://www.southsudanhealth.info/PublicData/Library/Policy_Documents/Health%20Sector%20Development%20Plan%202012-16.pdf]. Accessed 10 March 2021.

[7] Government of the Republic of South Sudan. [<http://www.goss-online.org/index.html>]. Accessed 10 March 2021

5.6.1c

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

Yes = 0 , No = 1

Current Year Score: 1

There is no public evidence that South Sudan has not shared pandemic pathogen samples during an outbreak in the past two years. No evidence is found via World Health Organization (WHO) resources as well as media reports. [1,2,3]. There is no evidence that in light of the ongoing pandemic Covid-19, South Sudan has not shared pathogen samples.[4,5]

[1] World Health Organisation (WHO). "Disease Outbreak News". [<https://www.who.int/csr/don/en/>]. Accessed 10 March 2021

[2] World Health Organization. "Pandemic Influenza Preparedness Framework Annual Progress Report. 1 January -31 December, 2018. 2019. [<https://apps.who.int/iris/bitstream/handle/10665/311901/WHO-WHE-IHM-PIP-2019.1-eng.pdf?sequence=1&isAllowed=y>]. Accessed 10 March 2021

[3] World Health Organization. Influenza. [<https://www.who.int/influenza/en/>] Accessed 10 March 2021.

[4] World Health Organization. South Sudan. WHO South Sudan Situation Updates on COVID-19. [<https://covid19.who.int/region/afro/country/ss>] Accessed 10 March 2021

[5] Republic of South Sudan. Ministry of Health. Covid-19 Updates. [<https://moh.gov.ss/covid-19.php>] Accessed 10 March 2021

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 12

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 0

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: 0

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: 0

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: 0

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: 2

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: 0

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: 1

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: 0

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: 1

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: 26.8

2008-2018

United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO);
The Economist Intelligence Unit

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.41

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: 20.1

2009

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

The most recent estimated data for share of informal employment in South Sudan stands at 76%. The data is from 2015. Data is sourced from the report 'Capturing the Informal Economy in South Sudan' from 2018. 'Despite the NGO and donor funding and programs to support informal income generation activities, there are currently no estimates of the size of South Sudan's informal economy, which consequently has an impact on policy and decision-making processes in the country. It is estimated that 76% of the population engages in subsistence activities ("South Sudan: The Cost of War", 2015). A recent USAID report stated that the informal economy is strongly connected to animal husbandry, with 950,000 cattle farmers and 350,000 herders ("Assessment of USAID", 2017, p.16), in a country where the population is estimated to be around 12 million. Barriers to the formal economy mean that many citizens resort to informal income generating activities including the making and selling of bread, beer, charcoal, dried grass, as well as laundry services, motorbike taxis, and market stalls that sell food

items and imported goods (Lamb, 2011)'. [1]

[1] Social Science Research Network(SSRN).TranjeetK.Kang.03 April 2018. Capturing the Informal Economy in South Sudan.[
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3147391] Accessed 10 March 2021

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 0

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 1

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

Current Year Score: 1

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.44

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: 0

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: 0

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 0

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 19.9

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

2005-2015

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

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

Current Year Score: 0

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 57.6

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: 481.1

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 3.38

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 14.04

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: -

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 40.68

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 11.32

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: 12.26

2018

WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a

Trust medical and health advice from the government

Share of population that trust medical and health advice from the government , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018

6.5.4b

Trust medical and health advice from medical workers

Share of population that trust medical and health advice from health professionals , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018