

Guatemala

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

There is insufficient public evidence to conclude that Guatemala has national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. The WHO library of national action plans for AMR does not have a plan for Guatemala. [1] As part of the work for the WHO report "Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR)", Guatemala confirmed in the WHO Global Database for Antimicrobial Resistance Country Self-Assessment for 2017 - 2018 that a national AMR plan has been developed, but does not mention implementation. [2, 3] In April 2018, the Ministry of Public Health and Social Assistance (Ministerio de Salud Publica y Asistencia Social, MSPAS) published the National Strategic Plan for the Ministry of Public Health and Social Assistance 2018 - 2032 ("Plan Estrategico Institucional Ministerio de Salud Publica y Asistencia Social 2018-2032") but it does not address antimicrobial resistance. [4] In June 2019, the WHO announced a plan to offer technical assistance to the MSPAS to develop a national AMR plan, but there is no public evidence that the plan has been issued publicly. [5] The websites for the Ministry of Agriculture and Livestock, National Laboratory and Department of Epidemiology do not have additional information. [6,7,8]

[1] World Health Organization. "Library of national action plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>] Accessed 28 November 2020

[2] World Health Organization. 2018. Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR). [<https://www.who.int/antimicrobial-resistance/publications/Analysis-report-of-AMR-country-se/en/>] Accessed 28 November 2020

[3] World Health Organization. "Global Database for Antimicrobial Resistance Country Self-Assessment". [<https://amrcountryprogress.org/>] Accessed 28 November 2020

[4] Ministry of Public Health and Social Assistance. April 2018. "Plan Estrategico Institucional Ministerio de Salud Publica y Asistencia Social 2018-2032". [<https://www.mspas.gob.gt/index.php/component/jdownloads/category/47-plan-estrategico-anual>] Accessed 28 November 2020

[5] World Health Organization. 2019. "OPS/OMS contribuye a combatir la resistencia a los antimicrobianos en Guatemala". [https://www.paho.org/gut/index.php?option=com_content&view=article&id=1246:ops-oms-contribuye-a-combatir-la-resistencia-a-los-antimicrobianos-en-guatemala&Itemid=441] Accessed 28 November 2020.

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 28 November 2020

[8] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 28 November 2020

1.1.1b

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

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

Current Year Score: 1

There is evidence that national laboratories can test for at least five of the 7+1 AMR pathogens. There is a national laboratory in Guatemala, confirms that it monitors for *E. coli*, *S. aureus*, *S. pneumoniae*, *Salmonella* spp., *Shigella* spp, and *Mycobacterium tuberculosis*, but there is no mention of *K. pneumoniae* and *N. gonorrhoea*. [1] Older reports that are still available online suggest that Guatemala has the capacity to monitor for *K. pneumoniae* as well. According to the Pan American Health Organization (PAHO), the network of laboratories for the surveillance of antimicrobial resistance in Guatemala is made up of 5 laboratories. The report lists results for monitoring of drug resistant strains of *E. coli*, *K. pneumoniae*, *S. aureus*, *S. pneumoniae*, *Shigella* spp, and *salmonella* (typhi). It does not make mention of *N.gonorrhoea* or tuberculosis testing. [2] A report from the US Centers for Disease Control and Prevention in the US confirms this ability for at least three pathogens. The CDC collaborates with the government of Guatemala to strengthen capacity to conduct tests for methicillin-resistant *S. aureus* and *E. coli*, as well as for vancomycin resistant-enterococci; multi-drug resistant *Acinetobacter*; cephalosporin-resistant *Klebsiella*; and carbapenem-resistant *Klebsiella*. [3] No further evidence on Guatemala's ability to test for AMR pathogens is available via the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock and the Ministry of the Environment and Natural Resources [4,5,6]

[1] Ministry of Public Health and Social Assistance. "Laboratorio Nacional de Salud."

[<http://portal.ins.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[2] Pan American Health Organization. 2014. "Informe Anual de la Red de Monitoreo/Vigilancia de la Resistencia a los Antibióticos".

[http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&Itemid=&gid=40719&lang=en] Accessed 28 November 2020

[3] Global Health Dynamics. 2015. "Surveillance and Monitoring of AMR". [http://www.globalhealthdynamics.co.uk/wp-content/uploads/2015/05/05_Solomon-Ijaz.pdf] Accessed 28 November 2020

[4] Ministry of Public Health and Social Assistance. April 2018. "Plan Estrategico Institucional Ministerio de Salud Publica y Asistencia Social 2018-2032". [<https://www.mspas.gob.gt/index.php/component/jdownloads/category/47-plan-estrategico-anual>] Accessed 28 November 2020

[5] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[6] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that shows that the government of Guatemala conducts surveillance for antimicrobial residues. Generally, there is no public information about monitoring for AMR pathogens from the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock, the Ministry of the Environment and Natural Resources and the National Laboratory. [1,2,3,4] As part of the work for the WHO report "Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR)", Guatemala did not answer the questions about surveillance of AMR pathogens in the

environment. The government has confirmed that there is a national AMR plan, but not that it has been approved or implemented. [5,6]

[1] Ministry of Public Health and Social Assistance. April 2018. "Plan Estrategico Institucional Ministerio de Salud Publica y Asistencia Social 2018-2032". [<https://www.mspas.gob.gt/index.php/component/jdownloads/category/47-plan-estrategico-anual>] Accessed 28 November 2020

[2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[3] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[4] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[5] World Health Organization. 2018. Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR). [<https://www.who.int/antimicrobial-resistance/publications/Analysis-report-of-AMR-country-se/en/>] Accessed 28 November 2020

[6] World Health Organization. "Global Database for Antimicrobial Resistance Country Self-Assessment". [<https://amrcountryprogress.org/>] Accessed 28 November 2020

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 2

Guatemala has legislation that requires prescriptions for antibiotic use for humans in Guatemala, and there is no evidence of gaps in enforcement. In August 2019, the government issued Ministerial Agreement No. 181-2019, which restricts the sale of antibiotics for human use by requiring prescriptions from a doctor. [1] The legislation states that the director of a pharmacy must monitor the sales of antibiotics to ensure that they are tied to prescriptions. The pharmacist is required to verify the prescription date, patient's name and dosage instructions. The law does not introduce penalties for failing to comply. [1] Antibiotic usage without prescriptions has been documented prior to the passage of this law. A 2016 - 2019 study of more than 400 pharmacy customers in Guatemala found that nearly 80 per cent were self-medicating without a doctor's prescription. The antibiotic that was most frequently requested was amoxicillin. [2,3] As part of the work for the WHO report "Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR)", Guatemala answered that it monitors "Total sales of antimicrobials are monitored at national level and/or some monitoring of antibiotic use at sub-national level". [4,5] Data on enforcement of the 2019 legislation are not publicly available from the Ministry of Public Health and Social Assistance (MSPAS), Ministry of Agriculture and Livestock, or the National Laboratory. [6,7,8]

[1] Government of Guatemala. 2019. "Ministerial Agreement No. 181-2019". [<https://www.mspas.gob.gt/images/files/acuerdosministeriales/2019/AM1812019.pdf>] Accessed 28 November 2020

[2] Ramay, Brooke, et al. 2016. "Self-medication with antibiotics in four Guatemala City pharmacies: characteristics, sources of information, perceived effects, and motives.". [<https://dialnet.unirioja.es/descarga/articulo/5920177.pdf>] Accessed 28 November 2020

[3] SciDevNet. 2020. "En Guatemala antibióticos se venden en tiendas y sin receta". [<https://www.scidev.net/america-latina/health/news/en-guatemala-antibioticos-se-venden-en-tiendas-y-sin-receta/>] Accessed 28 November 2020

[4] World Health Organization. 2018. Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR). [<https://www.who.int/antimicrobial-resistance/publications/Analysis-report-of-AMR-country-se/en/>] Accessed 28 November 2020

2020

[5] World Health Organization. "Global Database for Antimicrobial Resistance Country Self-Assessment.

[<https://amrcountryprogress.org/>] Accessed 28 November 2020

[6] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[7] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[8] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

1.1.2b

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

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

Current Year Score: 0

There is insufficient evidence to conclude that Guatemala has legislation that requires prescriptions for antibiotic use for animals in Guatemala. In August 2019, the government issued Ministerial Agreement No. 181-2019, which restricts the sale of antibiotics by requiring a prescription, but the law does not specifically mention animal health. [1] The legislation states that the director of a pharmacy must monitor the sales of antibiotics to ensure that they are tied to prescriptions. The pharmacist is required to verify the prescription date, patient's name and dosage instructions. The law does not mention veterinarians nor does it introduce penalties for failing to comply. [1] There is no additional information about prescriptions for antibiotic use in animal health from the Ministry of Public Health and Social Assistance (MSPAS), Ministry of Agriculture and Livestock, or the National Laboratory. [2,3,4] As part of the work for the WHO report "Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR)", Guatemala answered that it monitors "Total sales of antimicrobials are monitored at national level and/or some monitoring of antibiotic use at sub-national level". [5,6]

[1] Government of Guatemala. 2019. "Ministerial Agreement No. 181-2019".

[<https://www.mspas.gob.gt/images/files/acuerdosministeriales/2019/AM1812019.pdf>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[4] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[5] World Health Organization. 2018. Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR).

[<https://www.who.int/antimicrobial-resistance/publications/Analysis-report-of-AMR-country-se/en/>] Accessed 28 November 2020

[6] World Health Organization. "Global Database for Antimicrobial Resistance Country Self-Assessment.

[<https://amrcountryprogress.org/>] Accessed 28 November 2020

1.2 ZOO NOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a national law, plan, or equivalent strategy document, on zoonotic disease for Guatemala. The Ministry of Public Health and Social Assistance (MSPAS) does have general information zoonotic viruses, but there are no national strategies. MSPAS developed a publication called, "Guide for the surveillance and management of the Zika virus infection and complications in Guatemala" ("Guía para la vigilancia y manejo de la infección del virus zika y sus complicaciones en Guatemala"). The guide gives a general outline of Zika and its symptoms, and highlights a few disease prevention recommendations for individuals, families, communities and institutions, but it does not describe a national strategy for Zika. [1] MSPAS also has information about preventing the spread COVID-19, but it is not a general strategy. [2] The General Direction of Health Regulation, Surveillance and Control ("Dirección General de Regulación, Vigilancia y Control de la Salud"), under MSPAS, has a mosquito surveillance program, but it does not discuss the risk to humans of mosquito-borne diseases. Rather, it describes monitoring and fumigation procedures, but not within a framework of zoonosis control. [3] The Ministry of Agriculture and Livestock runs Bovine Health Program (Programa de Sanidad Bovina), which aims to control brucellosis and tuberculosis in local bovine herds. The program is restricted to bovine herds, and not in the context as a threat to humans. [4] Generally, there is no additional public information about zoonoses from the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock or the National Laboratory. [5,6,7] The Centers for Disease Control and Prevention (CDC) in the United States are active in Guatemala work closely with the government in zoonotic disease research and control, but it has not issued any strategy documents on zoonotic disease in Guatemala. [8]

[1] Ministry of Public Health and Social Assistance. "Guía para la vigilancia y manejo de la infección del virus zika y sus complicaciones en Guatemala". [<https://www.mspas.gob.gt/images/files/zika/MedidasdeprevenciondelainfecciondelZika.pdf>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 28 November 2020

[3] Dirección General de Regulación. "Vigilancia y Control de la Salud, Manual operativo de vigilancia y control entomológico de aedes aegypti".

[[http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20\(VIRTUAL\).pdf](http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20(VIRTUAL).pdf)] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Program of Brucellosis and Bovine Tuberculosis".

[http://visar.maga.gob.gt/?page_id=919] Accessed 23 January 2019

[5] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] National Laboratory of Guatemala. "Homepage". [<http://portal.ins.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[8] Centers for Disease Control and Prevention. "Global Disease Detection Program: Guatemala and Central America".

[<https://www.cdc.gov/globalhivtb/where-we-work/region/westernhemisphere/guatemala/guatemala.html>] Accessed 28 November 2020

1.2.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of national plans, guidelines, or laws that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans in Guatemala.

The government has few disease-specific documents, but there are no general plans for managing the risk of zoonotic disease spillover events. The Ministry of Public Health and Social Assistance (MSPAS) has issued documents that address the Zika virus, COVID-19, and mosquito surveillance, but not within the context of reducing the risk of spillover effects. [1,2,3] The Ministry of Agriculture and Livestock runs Bovine Health Program (Programa de Sanidad Bovina), which aims to control brucellosis and tuberculosis in local bovine herds. The program is restricted to bovine herds, and not in the context as a threat to humans. [4]

Generally, there is no public information about risk management, surveillance and control of zoonotic pathogens from the Ministry of Public Health and Social Assistance (MSPAS), the Ministry of Agriculture and Livestock, and the National Laboratory. [5,6,7]

[1] Ministry of Public Health and Social Assistance. "Guía para la vigilancia y manejo de la infección del virus zika y sus complicaciones en Guatemala". [<https://www.mspas.gob.gt/images/files/zika/MedidasdeprevenciondelainfecciondelZika.pdf>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 28 November 2020

[3] Direccion General de Regulacion. "Vigilancia y Control de la Salud, Manual operativo de vigilanciay control entomológico de aedes aegypti".

[[http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20\(VIRTUAL\).pdf](http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20(VIRTUAL).pdf)] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Program of Brucellosis and Bovine Tuberculosis".

[http://visar.maga.gob.gt/?page_id=919] Accessed 28 November 2020

[5] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of national plans, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern in Guatemala. The government has few disease-specific documents, but they do not address diseases within the context of reducing risk to humans and animals. The Ministry of Public Health and Social Assistance (MSPAS) has issued documents that address the Zika virus, COVID-19, and mosquito surveillance, but not within the context of a national plan for zoonosis and reducing the threat to humans. [1,2,3] The Ministry of Agriculture and Livestock runs Bovine Health Program (Programa de Sanidad Bovina), which aims to control brucellosis and tuberculosis in local bovine herds. The program is restricted to bovine herds, and not in the context as a threat to humans. [4] Generally, there is no public information about the surveillance and control of zoonotic pathogens from the Ministry of Public Health

and Social Assistance (MSPAS), the Ministry of Agriculture and Livestock, and the National Laboratory. [5,6,7]

- [1] Ministry of Public Health and Social Assistance. "Guía para la vigilancia y manejo de la infección del virus zika y sus complicaciones en Guatemala". [<https://www.mspas.gob.gt/images/files/zika/MedidasdeprevenciondelainfecciondelZika.pdf>] Accessed 28 November 2020
- [2] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 28 November 2020
- [3] Direccion General de Regulacion. "Vigilancia y Control de la Salud, Manual operativo de vigilancia y control entomológico de aedes aegypti". [[http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20\(VIRTUAL\).pdf](http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20(VIRTUAL).pdf)] Accessed 28 November 2020
- [4] Ministry of Agriculture and Livestock. "Program of Brucellosis and Bovine Tuberculosis". [http://visar.maga.gob.gt/?page_id=919] Accessed 28 November 2020
- [5] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020
- [6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [7] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

1.2.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a department, agency or similar unit dedicated to zoonotic disease that functions across ministries in Guatemala. Websites for the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock, the National Laboratory and the Ministry of the Environment and Natural Resources not have any public information about participation in zoonotic disease monitoring initiatives with other ministries or international organizations. [1,2,3,4] The Centers for Disease Control and Prevention (CDC) does not have additional information. [5]

- [1] Ministry of Public Health and Social Assistance. April 2018. "Plan Estrategico Institucional Ministerio de Salud Publica y Asistencia Social 2018-2032". [<https://www.mspas.gob.gt/index.php/component/jdownloads/category/47-plan-estrategico-anual>] Accessed 28 November 2020
- [2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [3] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020
- [4] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [5] C Centers for Disease Control and Prevention. "Global Disease Detection Program: Guatemala and Central America". [<https://www.cdc.gov/globalhivtb/where-we-work/region/westernhemisphere/guatemala/guatemala.html>] Accessed 28 November 2020

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Guatemala has a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency. The Department of Animal Health, which is under the Ministry of Agriculture and Livestock (MAGA), runs the Bovine Health Programme ("Programa de Sanidad Bovina"). The general program includes a specific program, the Bovine Brucellosis and Tuberculosis Program (Programa de Brucellosis y Tuberculosis Bovina), that aims to control brucellosis and tuberculosis in local bovine herds. The programme is defined in law through the Decree of Plant and Animal Health 36-98, the Governmental Agreement 745-99 on the Law of Animal and Plant Health, and Government Agreement 576-84 on the Control and Eradication of Brucellosis, Tuberculosis and Rabies in Domestic Animals. The program has mechanisms where farmers are required to test their animals on a regular basis and report results. Laboratory testing is provided for free for those with fewer than 30 animals, while those with 30 or more animals are required to hire a veterinarian to conduct the tests and submit them to the Directorate of Animal Health of the Vice Ministry of Agricultural Health and Regulations of MAGA. [1] Websites for the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock, National Laboratory, and the Ministry of the Environment and Natural Resources do not have additional information on mechanisms for owners of livestock to report diseases. [2,3,4,5]

[1] Ministry of Agriculture and Livestock. "Program of Brucellosis and Bovine Tuberculosis".

[http://visar.maga.gob.gt/?page_id=919] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[4] National Laboratory of Guatemala. "Homepage". [<http://portal.ins.gob.gt/>] Accessed 28 November 2020

[5] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence to conclude that Guatemala has laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). The framework for data protection is The Law on Protection of Personal Data, which was passed in 2009. The law guarantees data protection for all persons and legal persons in the country. Any entities that collect and process personal data are required to ensure the protection of personal data. This may include owners of animals as long as they are legal persons in Guatemala; however there is no clear evidence that this is the case. [1] There is no additional information from the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock and the Ministry of the Environment and Natural Resources. [2,3,4] The National government does not have information about this. [5] There is no other evidence of studies or articles that provide relevant

information.

- [1] Government of Guatemala. 2009. "Ley de proteccion de datos personales".
[<http://www.oas.org/es/sla/ddi/docs/G7%20Iniciativa%204090-2009.pdf>] Accessed 28 November 2020
- [2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".
[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020
- [3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [4] Ministry of the Environment and Natural Resources. "Productos y servicios".
[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [5] Gobierno de Guatemala. "Homepage". [<https://www.guatemala.gob.gt/>] Accessed 28 November 2020

1.2.2c

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Guatemala conducts surveillance of zoonotic disease in wildlife (e.g. wild animals, insects, other disease vectors, etc.). The General Direction of Health Regulation, Surveillance and Control ("Direccion General de Regulacion, Vigilancia y Control de la Salud") surveys the population of mosquito larvae to determine the presence of *Aedes aegypti*, which transmits dengue fever and other diseases. The surveillance manual specifies that surveillance activities should take place twice a year, once during the dry season (November to April) and once during the wet season (May to October). [1] There is no additional information from the Ministry of Public Health and Social Assistance, National Laboratory, the Ministry of Agriculture and Livestock and the Ministry of the Environment and Natural Resources. [2,3,4,5]

- [1] Direccion General de Regulacion. "Vigilancia y Control de la Salud, Manual operativo de vigilanciay control entomológico de aedes aegypti".
[[http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20\(VIRTUAL\).pdf](http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20(VIRTUAL).pdf)] Accessed 28 November 2020
- [2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".
[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020
- [3] National Laboratory of Guatemala. "Homepage". [<http://portal.ins.gob.gt/>] Accessed 28 November 2020
- [4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [5] Ministry of the Environment and Natural Resources. "Productos y servicios".
[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

1.2.3 International reporting of animal disease outbreaks

1.2.3a

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

Yes = 1 , No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 14.15

2017

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 2.34

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 no publicly available evidence that Guatemala has a national plan on zoonotic disease or other legislation, regulation or plan include mechanisms for working with the private sector in controlling or responding to zoonoses. Guatemala does not have a national zoonosis plan and generally, there is no public information about private sector involvement in responding to zoonoses from the Ministry of Public Health and Social Assistance, National Laboratory, the Ministry of Agriculture and Livestock and the Ministry of the Environment and Natural Resources. [1,2,3,4] Separately, government documents that cover specific zoonotic diseases are not comprehensive zoonotic programs (e.g. do not address risk reduction in the human population) and do not address cooperation with the private sector. For example, the Department of Animal Health runs the Bovine Health Program (Programa de Sanidad Bovina), which aims to control brucellosis and tuberculosis in local bovine herds, but there are no mechanisms for controlling these diseases in the human population and no mechanisms for working with private companies. [5] The Ministry of Public Health and Social Assistance (MSPAS) has issued documents that address COVID-19, the Zika virus and mosquito surveillance, but they are not zoonotic disease plans and do not address cooperation with the private sector. [6,7,8]

- [1] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 28 November 2020
- [2] National Laboratory of Guatemala. "Homepage". [http://portal.lns.gob.gt/] Accessed 28 November 2020
- [3] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020
- [4] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [5] Ministry of Agriculture and Livestock. "Program of Brucellosis and Bovine Tuberculosis". [http://visar.maga.gob.gt/?page_id=919] Accessed 28 November 2020
- [6] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html] Accessed 28 November 2020
- [7] Ministry of Public Health and Social Assistance. "Guía para la vigilancia y manejo de la infección del virus zika y sus complicaciones en Guatemala". [https://www.mspas.gob.gt/images/files/zika/medidasdeprevenciondelainfecciondelzika.pdf] Accessed 28 November 2020
- [8] Dirección General de Regulación. "Vigilancia y Control de la Salud, Manual operativo de vigilancia y control entomológico de aedes aegypti". [http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20(VIRTUAL).pdf] Accessed 28 November 2020

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Guatemala 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. The National Health Laboratory (Laboratorio Nacional de Salud, LNS), a department of the Ministry of Public Health and Social Assistance (MSPAS) monitors foods, medicines and cosmetics and provides epidemiological services. The LNS has no public evidence of keeping updated records of toxic substances or infectious pathogens. [1] The Department of Epidemiological surveillance, a department of the Ministry of Agriculture and Livestock, does not publish information on research and inventories of dangerous pathogens. [2] Websites for the Ministry of Public Health and Social Assistance; Ministry of Agriculture and Livestock; Ministry of Defense and National Council of Science and Technology do not have any additional information about this. [3,4,5,6] The VERTIC database does not have any relevant legislation about this. [7] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [8]

- [1] National Health Laboratory. Servicios. [http://portal.lns.gob.gt/index.php/servicios] Accessed 28 November 2020
- [2] Ministry of Agriculture and Livestock. "DEPARTAMENTO DE VIGILANCIA EPIDEMIOLÓGICA Y ANÁLISIS DE RIESGO" [http://visar.maga.gob.gt/?page_id=665] Accessed 28 November 2020
- [3] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 28 November 2020
- [4] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[8] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Guatemala 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. There are no laws in the National Registry that address biosecurity. [1] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information on biosecurity in Guatemala. [2,3,4,5,6,7] The VERTIC database does not have any relevant legislation about this. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9]

[1] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] National Health Laboratory. Servicios. [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Guatemala has an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. There are no laws in the National Registry that address biosecurity issues including physical containment, operation practices, failure reporting systems and/or cybersecurity of facilities. [1] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information on the responsibility for enforcing biosecurity in Guatemala. [2,3,4,5,6,7] The VERTIC database does not have any relevant legislation about this. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9]

[1] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Guatemala has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. There are no laws in the National Registry that address the requirement to consolidate dangerous pathogens into a minimum number of facilities. [1] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [2,3,4,5,6,7] The VERTIC database does not have any relevant legislation about this. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] There is no other evidence of studies or articles that provide relevant information.

[1] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.3.1e

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence to conclude that Guatemala has the in-country capacity to conduct Polymerase Chain Reaction (PCR)-based diagnostic testing for anthrax and/or Ebola. The National Health Laboratory has some public information about testing and monitoring, but it does not publish complete information about diagnostic testing for anthrax or Ebola. [1] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [2,3,4,5,6,7] The VERTIC database does not have any relevant legislation about this. [8] A news report about soldiers returned to Guatemala from the Democratic Republic of Congo (DRC) does not mention PCR testing as a means to diagnose the disease. [9] There is no other evidence of studies or articles that provide relevant information.

[1] National Health Laboratory. Unidades. [<http://portal.ins.gob.gt/index.php/unidades>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] La Prensa. March 2015. "Soldados guatemaltecos seran aislados para evitar riesgo de ebola". [<https://www.laprensa.hn/mundo/820148-410/soldados-guatemaltecos-ser%C3%A1n-aislados-para-evitar-riesgo-de-%C3%A9bola>] Accessed 28 November 2020

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Guatemala requires biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. There are no laws in the National Registry that address biosecurity. [1] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [2,3,4,5,6,7] The VERTIC database does not have any relevant legislation about this. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] There is no other evidence of studies or articles that provide relevant information.

[1] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is no public evidence that Guatemala has regulations or licensing conditions specifying that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to drug testing, background checks, and psychological or mental fitness checks. There are no laws in the National Registry that address testing for personnel with access to dangerous pathogens. [1] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [2,3,4,5,6,7] The VERTIC database does not have any relevant legislation about this. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] There is no other evidence of studies or articles that provide relevant information.

[1] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.3.4 Transportation security

1.3.4a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence to conclude that Guatemala has information on national regulations on the safe and secure transport of infectious substances (Categories A and B). The Ministry of Public Health and Social Assistance (MSPAS) issued the Code of Health ("Codigo de Salud") in 1997 and Government Agreement No. 5009-2001, Regulations on the management of hospital waste ("Acuerdo Gubernativo No. 509-2001, Reglamento para el manejo de desechos sólidos hospitalarios") in 2001. Both pieces of legislation mention the disposal of toxic substances, but they do not specifically address Category A and B substances. [1,2] Indirectly, the country has adopted UN guidelines for the transport of dangerous substances both domestically and cross border when it incorporated the Orange Book as a technical reference document in the Central American Manual of Standards for the Carriage of Goods by Road and Hazardous waste in 2009. [3] The Orange Book has eight classifications for dangerous goods and within each class are further subdivisions, but these do not appear to include Class A and B divisions. [4] There are no additional laws on the transport of dangerous substances. [5] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; Ministry of Communications, Infrastructure and

Housing; the Ministry of the Environment and Natural Resources and Ministry of the Economy do not have any additional information about this. [6,7,8,9,10,11,12,13] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [14] The VERTIC database does not have any relevant legislation about this. [15]

- [1] Ministry of Public Health and Social Assistance. 1997. "Codigo de Salud". [https://www.mspas.gob.gt/index.php/component/jdownloads/send/9-numeral-6-manuales-de-procedimientos/64-codigo-de-salud] Accessed 28 November 2020
- [2] Ministry of Public Health and Social Assistance. 2001. "Acuerdo Gubernativo No. 509-2001, Reglamento para el manejo de desechos sólidos hospitalarios". [https://www.mspas.gob.gt/images/files/saludambiente/regulacionesvigentes/desechossolidos/AcuerdoGubernativo509-2001ManejoDesechosSolidosHospitalarios.pdf] Accessed 28 November 2020
- [3] Departamento de Transporte. "Normas para el transporte terrestre de mercancías y residuos". [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjE4YWB1qftAhVvx4sKHRfLBzoQFjAAegQIAxAC&url=http%3A%2F%2Fonset.transito.gob.gt%2Findex.php%2Fbiblioteca-virtual%2Fbiblioteca%2FSIECA%2FManual%2520%2520TRANSPORTE%2520TERRESTRE%2520DE%2520MERCANCIAS%2520Y%2520RESIDUOS%2520PELIGROSOS.pdf%2Fdownload&usg=AOvVaw3uliy_HJdXv1UCKJcli4h7] Accessed 28 November 2020
- [4] Chemical Safety Pro. 2016. "Introduction to TDG". [https://www.chemsafetypro.com/Topics/TDG/Introduction_to_the_transport_of_dangerous_goods_TDG.html] Accessed 28 November 2020
- [5] National congress. "Consulta legislativa". [https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/] Accessed 28 November 2020
- [6] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 28 November 2020
- [7] National Health Laboratory. Servicios. [http://portal.ins.gob.gt/index.php/servicios] Accessed 28 November 2020
- [8] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020
- [9] Ministry of National Defense. "Mision y vision". [https://www.mindef.mil.gt/misionvision/misionvision.html] Accessed 9 December 2020
- [10] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [https://www.senacyt.gob.gt/portal/] Accessed 28 November 2020
- [11] Ministry of Communications, Infrastructure and Housing. "Objetivos." [http://www.civ.gob.gt/web/guest/127] Accessed 28 November 2020
- [12] Ministry of the Economy. "Manuales Integración y Comercio Exterior". [http://www.mineco.gob.gt/manuales-integraci%C3%B3n-y-comercio-exterior] Accessed 28 November 2020
- [13] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [14] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/guatemala] Accessed 28 November 2020
- [15] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/] Accessed 28 November 2020

1.3.5 Cross-border transfer and end-user screening

1.3.5a

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

Yes = 1, No = 0

Current Year Score: 0

There is no public evidence that Guatemala has national legislation, regulation, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. The Ministry of Public Health and Social Assistance (MSPAS) issued the Code of Health ("Codigo de Salud") in 1997 and Government Agreement No. 5009-2001, Regulations on the management of hospital waste ("Acuerdo Gubernativo No. 509-2001, Reglamento para el manejo de desechos sólidos hospitalarios") in 2001. Both pieces of legislation mention the disposal of toxic substances, but they do not specifically address cross-border transfer and end-user screening. [1,2] Indirectly, the country has adopted UN guidelines for the transport of dangerous substances both domestically and cross border when it incorporated the Orange Book as a technical reference document in the Central American Manual of Standards for the Carriage of Goods by Road and Hazardous waste in 2009, but these do not specifically address end-user screening. [3,4] There are no additional laws on the transport of dangerous substances. [5] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; Ministry of Communications, Infrastructure and Housing; Ministry of the Economy; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [6,7,8,9,10,11,12,13] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [14] The VERTIC database does not have any relevant legislation about this. [15]

[1] Ministry of Public Health and Social Assistance. 1997. "Codigo de Salud".

[<https://www.mspas.gob.gt/index.php/component/jdownloads/send/9-numeral-6-manuales-de-procedimientos/64-codigo-de-salud>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. 2001. "Acuerdo Gubernativo No. 509-2001, Reglamento para el manejo de desechos sólidos hospitalarios".

[<https://www.mspas.gob.gt/images/files/saludambiente/regulacionesvigentes/desechosolidos/AcuerdoGubernativo509-2001ManejoDesechosSolidosHospitalarios.pdf>] Accessed 28 November 2020

[3] Departamento de Transporte. "Normas para el transporte terrestre de mercancías y residuos".

[https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&cad=rja&uact=8&ved=2ahUKEwjE4YWB1qftAhVvx4sKHRfLBzoQFjAAegQIAxAC&url=http%3A%2F%2Fonset.transito.gob.gt%2Findex.php%2Fbiblioteca-virtual%2FBiblioteca%2FSIECA%2FManual%2520%2520TRANSPORTE%2520TERRESTRE%2520DE%2520MERCANCIAS%2520Y%2520RESIDUOS%2520PELIGROSOS.pdf%2Fdownload&usg=AOvVaw3uliy_HJdXv1UCKJcli4h7] Accessed 28 November 2020

[4] Chemical Safety Pro. 2016. "Introduction to TDG".

[https://www.chemsafetypro.com/Topics/TDG/Introduction_to_the_transport_of_dangerous_goods_TDG.html] Accessed 28 November 2020

[5] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[6] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[7] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[8] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[9] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[10] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[11] Ministry of Communications, Infrastructure and Housing. "Objetivos." [<http://www.civ.gob.gt/web/guest/127>] Accessed 28 November 2020

[12] Ministry of the Economy. "Manuales Integración y Comercio Exterior". [<http://www.mineco.gob.gt/manuales-integraci%C3%B3n-y-comercio-exterior>] Accessed 28 November 2020

[13] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[14] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

[15] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence to conclude that Guatemala has national biosafety legislation and/or regulations. In 2015, the National Health Laboratory published a manual on handling and transporting specimens. The manual addresses basic biosafety protocols such as using PPE (latex gloves, masks, etc), safe handling and disposal of infectious materials, etc. It states that national laboratories and hospitals must adhere to the guidance. [1] However, there is no evidence that the manual is enforceable by law. There are no regulations in the National Registry that set national standards for biosafety. [2] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [3,4,5,6,7,8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] The VERTIC database does not have any relevant legislation about this. [10]

[1] Ministry of Public Health and Social Assistance. "Manual de normas y procedimientos para la toma de muestras y su envio". [<portal.ins.gob.gt/media/attachments/2018/12/14/manual-toma-de-muestras-lcs.pdf>] Accessed 28 November 2020

[2] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[4] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[5] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[6] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[7] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[8] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020 VERTIC. "VERTIC"

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Guatemala has an established agency responsible for the enforcement of biosafety legislation and regulations. In 2015 the National Health Laboratory (NHL) published a manual on biosafety for handling and transporting specimens. The manual addresses basic biosafety protocols such as using latex gloves, and states that national laboratories and hospitals must adhere to the guidance. However, the manual does not mandate the NHL to enforce the guidelines and there are no penalties listed for noncompliance. [1] Furthermore, there are no laws in the National Registry that designate a national entity responsible for biosafety. [2] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [3,4,5,6,7,8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] The VERTIC database does not have any relevant legislation about this. [10]

[1] Ministry of Public Health and Social Assistance. "Manual de normas y procedimientos para la toma de muestras y su envío". [portal.ins.gob.gt/media/attachments/2018/12/14/manual-toma-de-muestras-lcs.pdf] Accessed 28 November 2020

[2] National congress. "Consulta legislativa". [https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/] Accessed 28 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 28 November 2020

[4] National Health Laboratory. Servicios. [http://portal.ins.gob.gt/index.php/servicios] Accessed 28 November 2020

[5] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020

[6] Ministry of National Defense. "Misión y visión". [https://www.mindef.mil.gt/misionvision/misionvision.html] Accessed 9 December 2020

[7] Secretaria Nacional de Ciencia y Tecnología. "Portal". [https://www.senacyt.gob.gt/portal/] Accessed 28 November 2020

[8] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/guatemala] Accessed 28 November 2020

VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/] Accessed 28 November 2020

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence to conclude that Guatemala requires biosafety training, using a standardized, required approach for personnel working in facilities with especially dangerous pathogens, toxins, or biological materials with

pandemic potential. In 2015 the National Health Laboratory (NHL) published a manual on biosafety for handling and transporting specimens. The manual addresses basic biosafety protocols such as using latex gloves, and states that national laboratories and hospitals must adhere to the guidance. However, there is no description of required biosafety training. [1] There are no laws in the National Registry that address biosafety. [2] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [3,4,5,6,7,8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] The VERTIC database does not have any relevant legislation about this. [10]

- [1] Ministry of Public Health and Social Assistance. "Manual de normas y procedimientos para la toma de muestras y su envío". [portal.ins.gob.gt/media/attachments/2018/12/14/manual-toma-de-muestras-lcs.pdf] Accessed 28 November 2020
- [2] National congress. "Consulta legislativa". [https://www.guatemala.gob.gt/] Accessed 28 November 2020
- [3] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 28 November 2020
- [4] National Health Laboratory. Servicios. [http://portal.ins.gob.gt/index.php/servicios] Accessed 28 November 2020
- [5] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020
- [6] Ministry of National Defense. "Mision y vision". [https://www.mindef.mil.gt/misionvision/misionvision.html] Accessed 9 December 2020
- [7] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [https://www.senacyt.gob.gt/portal/] Accessed 28 November 2020
- [8] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/guatemala] Accessed 28 November 2020
- [10] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/] Accessed 28 November 2020

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Guatemala 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. Websites for the Ministry of Public Health and Social Assistance; Ministry of Governance; the National Laboratory; the Ministry of Agriculture and Livestock; the Ministry of National Defence; National Council of Science and Technology; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [1,2,3,4,5,6,7] The Pan American Health Organization (PAHO) in Guatemala works with government to monitor diseases such as rabies and avian flu, and does not mention research into pathogens with pandemic potential. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9] The

VERTIC database does not have any relevant legislation about this. [10] There is no other evidence of studies or articles that provide relevant information.

- [1] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 28 November 2020
- [2] Ministry of Governance. "Dependencias". [http://mingob.gob.gt/dependencias/] Accessed 28 November 2020
- [3] National Health Laboratory. Servicios. [http://portal.ins.gob.gt/index.php/servicios] Accessed 28 November 2020
- [4] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020
- [5] Ministry of National Defense. "Mision y vision". [https://www.mindef.mil.gt/misionvision/misionvision.html] Accessed 9 December 2020
- [6] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [https://www.senacyt.gob.gt/portal/] Accessed 28 November 2020
- [7] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [8] Pan American Health Organization. "Salud Pública y Veterinaria". [http://www.paho.org/gut/index.php?option=com_content&view=article&id=386:salud-pblica-y-veterinaria&Itemid=0] Accessed 28 November 2020
- [9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [https://bwc-ecbm.unog.ch/state/guatemala] Accessed 28 November 2020
- [10] VERTIC. "VERTIC" [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/] Accessed 28 November 2020

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence to conclude that Guatemala has a national policy requiring oversight of dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. The Ministry of Governance, which is responsible for public security, has not issued regulation about dual use research. [1] The Ministry of Defence, which is responsible for defending the country, has not issued legislation or guidance on dual use research. [2] The National Council of Science and Technology, which oversees the promotion and coordination of scientific and technological activities, also has not issued any guidance about dual use research. [3] The Ministry of Public Health and Social Assistance, which oversees public health and health-related research, has not issued regulation about dual use research. [4] Websites for the National Laboratory; the Ministry of Agriculture and Livestock; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [5,6,7] There are no laws in the National Registry that address dual use research. [8] The VERTIC database does not have any relevant legislation about this. [9] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [10]

- [1] Ministry of Governance. 2016. "Dependencias". [http://mingob.gob.gt/dependencias/] Accessed 28 November 2020
- [2] Ministry of National Defense. "Mision y vision". [https://www.mindef.mil.gt/misionvision/misionvision.html] Accessed 9 December 2020
- [3] Council of Science and Technology. "Consejo Nacional de Ciencia y Tecnología". [https://www.senacyt.gob.gt/portal/index.php/sincyt/12-nosotros/39-concyc] Accessed 28 November 2020
- [4] Ministry of Public Health and Assistance. "Informacion publica".

- [<http://www.mspas.gob.gt/index.php/transparencia/informacion-publica>] Accessed 28 November 2020
- [5] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 23 November 2020
- [6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [7] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [8] National congress. "Consulta legislativa". [<https://www.guatemala.gob.gt/>] Accessed 28 November 2020
- [9] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020
- [10] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Guatemala has an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. There are no laws in the National Registry that address dual use research. [1] The Ministry of Governance, which is responsible for public security, does not list dual use research as part of its remit. [2] The National Council of Science and Technology, which oversees the promotion and coordination of scientific and technological activities, does not mention dual use research. [3] The Ministry of Public Health and Social Assistance, which oversees public health and health-related research, is not tasked with monitoring dual use research. [4] Websites for the National Laboratory; the Ministry of Agriculture and Livestock; Ministry of Defence; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [5,6,7,8] The VERTIC database does not have any relevant legislation about this. [9] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [10]

- [1] National congress. "Consulta legislativa". [<https://www.congreso.gob.gt/consulta-legislativa/actas-de-sesion-plenaria/>] Accessed 28 November 2020
- [2] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 28 November 2020
- [3] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020
- [4] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020
- [5] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020
- [6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [7] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020
- [8] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 19 November 2020
- [9] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020
- [10] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence to conclude that Guatemala has national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. The National Council of Science and Technology (CONCYT) is the highest authority in the country that sets the direction and coordination of national scientific and technological development. It oversees biotechnology, basic sciences and productive innovation. There is no publicly available evidence that CONCYT has issued guidance on screening synthesized DNA. [1] The Ministry of Agriculture, Livestock and Nutrition, which oversees imports and exports of agriculture and livestock, does not publish requirements for screening of synthesized DNA. [2] The Ministry of Public Health and Social Assistance (MSPAS) has not issued regulation, policy or other guidelines regarding the sale of synthesized DNA. [3] Websites for the National Laboratory and the Ministries of Governance and Defence do not have any additional information about this. [4,5,6] There are no laws in the National Registry that address synthesized DNA. [7] The VERTIC database does not have any relevant legislation about this. [8] Although Guatemala is party to the Biological Weapons Convention, there is no public evidence that it has submitted Confidence-Building Measures reports. [9]

[1] National Council of Science and Technology. "Organizacion SINCYT".

[<https://www.senacyt.gob.gt/portal/index.php/sincyt/12-nosotros/39-concyt>] Accessed 28 November 2020

[2] Ministry of Agriculture and Livestock. "Requisitos Sanitarios para Importación de Animales Vivos, Productos y Subproductos". [https://visar.maga.gob.gt/?page_id=3778] Accessed 28 November 2020

[3] Ministry of Public Health and Social Assistance. "Informacion publica".

[<http://www.mspas.gob.gt/index.php/transparencia/informacion-publica>] Accessed 28 November 2020

[4] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 23 November 2020

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 23 November 2020

[6] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[7] National congress. "Consulta legislativa". [<https://www.guatemala.gob.gt/>] Accessed 28 November 2020

[8] VERTIC. "VERTIC" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>] Accessed 28 November 2020

[9] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/guatemala>] Accessed 28 November 2020

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 0

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 0

There is no public evidence that the national laboratory system in Guatemala has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests. The Ministry of Public Health and Social Assistance (MSPAS) and the National Laboratory have not published information about capacity to test for the six WHO tests that are common across all countries and the four country-defined tests. [1,2] In 2018, the Department of Epidemiology published surveillance protocols for certain diseases. [3] There is only one protocol that addresses a WHO-defined disease and that is the protocol for HIV. However, it does not specify the use of serology for confirming HIV. [4] The WHO local office confirms testing for tuberculosis, but does not specify the type of test. [5] There is no additional information from the local WHO office. [6]

[1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[2] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[3] Department of Epidemiology. 2018. "PROTOCOLOS DE VIGILANCIA".

[<http://epidemiologia.mspas.gob.gt/informacion/salas-situacionales/protocolo-de-vigilancia>] Accessed 24 November 2020

[4] Department of Epidemiology. 2018. "Protocolos de Vigilancia Epidemiológica Enfermedades Zoonóticas".

[<http://epidemiologia.mspas.gob.gt/files/Publicaciones%202018/Protocolos/Vigilancia%20Epidemiol%C3%B3gica%20de%20Infecciones%20de%20Transmisi%C3%B3n%20Sexual%20y%20VIH.pdf>] Accessed 24 November 2020

[5] Pan American Health Organization. "Se fortalece la lucha contra la Tuberculosis en Guatemala".

[http://www.paho.org/gut/index.php?option=com_content&view=article&id=896:curso-tb&Itemid=441] Accessed 28 November 2020

[6] World Health Organization. "Temas de salud".

[https://www.paho.org/gut/index.php?option=com_joomlabook&view=joomlabook&Itemid=221] Accessed 28 November 2020

2.1.1b

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

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

Current Year Score: 0

There is no evidence that Guatemala has a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing.

The Ministry of Public Health and Social Assistance (MSPAS) had created an information hub on its website about COVID-19, but it does not include a plan or strategy for testing. [1] There is no additional information available from the MSPAS. [2] The Ministry of Governance, which is responsible for public security, does not have plans for testing during a public health emergency. [3] The National Council of Science and Technology, which oversees the promotion and coordination of scientific and technological activities, does not mention public health emergencies or monitoring for novel pathogens. [4] Websites for the National Laboratory; the Ministry of Agriculture and Livestock; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [5,6,7]

[1] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 28 November 2020

[4] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[5] National Health Laboratory. Servicios. [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 28 November 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 19 November 2020

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is public evidence that the laboratory that serves as a reference facility in Guatemala is accredited. The National Laboratory website states that it is "Accredited as a testing laboratory according to COGUANOR NTG / ISO / IEC 17025: 2005 - With accreditation registration OGA-LE-011-06." [1]

[1] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 29 November 2020

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that the national laboratory that serves as a reference facility is subject to external quality assurance review. In May 2018, the Ministry of Public Health and Social Assistance (MSPAS) announced that the National Laboratory, which is designated as a reference laboratory, had undergone and passed a quality assurance review by the Guatemala Office of Accreditation (OGA). The certification is valid through 2020. [1]

[1] Diario de Cento America. May 2018. "Reconocen calidad de Laboratorio Nacional". [<https://dca.gob.gt/noticias-guatemala-diario-centro-america/reconocen-calidad-de-laboratorio-nacional/>] Accessed 29 November 2020

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence to conclude that there is a nationwide specimen transport system in Guatemala. The National Health Laboratory (NHL) published a manual in 2015 on handling and transporting specimens. The manual addresses the general principles for specimen transport, such as biosafety, training and the basic responsibilities of the transporter and recipient. The manual describes the requirement for any vehicle that transport specimens, but it does not mention the existence of a specific nationwide specimen transport system. [1] The Ministry of Public Health and Social Assistance (MSPAS) also mentions the existence of a specimen transport system in its protocol for Zika surveillance, but does not include details of a specific nationwide transport system. [2] Websites for the Department of Epidemiology; the National Laboratory; the National Council on Science and Technology; and the Ministries of Public Health and Social Assistance; Agriculture and Livestock; Communication Infrastructure and Housing; Environment and Natural Resources; and Defense and do not have any additional documentation of a nationwide specimen transport system. [3,4,5,6,7,8,9]

[1] Ministry of Public Health and Social Assistance. "Manual de normas y procedimientos para la toma de muestras y su envio". [portal.lns.gob.gt/media/attachments/2018/12/14/manual-toma-de-muestras-lcs.pdf] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Protocolo de Vigilancia".

[<http://epidemiologia.mspas.gob.gt/files/Protocolos%20Antiguos/Protocolo%20ZIKA.pdf>] Accessed 28 November 2020

[3] Department of Epidemiology. 2018. "PROTOCOLOS DE VIGILANCIA".

[<http://epidemiologia.mspas.gob.gt/informacion/salas-situacionales/protocolo-de-vigilancia>] Accessed 29 November 2020

[4] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 29 November 2020

[5] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 23 November 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] Ministry of Communications, Infrastructure and Housing. "Objetivos." [<http://www.civ.gob.gt/web/guest/127>] Accessed 23 November 2020

[8] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 23 November 2020

[9] Ministry of National Defense. "Alto mando". [https://www.mindef.mil.gt/altomando/alto_mando.html] Accessed 28

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2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no evidence that Guatemala has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. The Ministry of Public Health and Social Assistance (MSPAS) had created an information hub on its website about COVID-19, but it does not include a plan or strategy for testing. [1] There is no additional information available from the MSPAS. [2] The Ministry of Governance, which is responsible for public security, does not have plans for testing during a public health emergency. [3] The National Council of Science and Technology, which oversees the promotion and coordination of scientific and technological activities, does not mention public health emergencies or monitoring for novel pathogens. [4] Websites for the National Laboratory; the Ministry of Agriculture and Livestock; and the Ministry of the Environment and Natural Resources do not have any additional information about this. [5,6,7]

[1] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 28 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[3] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 28 November 2020

[4] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 28 November 2020

[5] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 28 November 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 19 November 2020

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 0

There is no public evidence that the country is conducting ongoing event-based surveillance and analysis for infectious disease in Guatemala. There is no evidence from the Ministry of Public Health and Social Assistance (MSPAS), the Ministry of Agriculture and Livestock and the Ministry of the Environment and Natural Resources. [1,2,3] Websites for the National Laboratory and the Department of Epidemiology do not have information about this. [4,5] The National Coordinator for the Reduction of Disaster (CONRED) does not have information about event-based surveillance. [6] The Centers for Disease Control and Prevention (CDC) does not have additional information. [7]

- [1] Ministry of Public Health and Social Assistance. "Dirección de Regulación, Vigilancia y Control de la Salud". [<https://www.mspas.gob.gt/index.php/institucional/unidades-departamentos/regulacion-vigilancia-y-control-de-la-salud>] Accessed 29 November 2020
- [2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [3] Ministry of the Environment and Natural Resources. "Productos y Servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 28 November 2020
- [4] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 28 November 2020
- [5] Department of Epidemiology. "Misión visión". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 29 November 2020
- [6] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 28 November 2020
- [7] Centers for Disease Control and Prevention. "Global Disease Detection Program: Guatemala and Central America". [<https://www.cdc.gov/globalhivtb/where-we-work/region/westernhemisphere/guatemala/guatemala.html>] Accessed 28 November 2020

2.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Guatemala reported a potential public health emergency of international concern to the WHO within the last two years.

Websites for the Ministry of Public Health and Social Assistance; National Laboratory; Department of Epidemiology; and Ministry of Agriculture and Livestock do not report notifying the WHO about infectious diseases within the last two years. [1,2,3,4] The Disease Outbreak News page and local office do not make mention of reporting by Guatemala to the WHO in

the last two years and there is no evidence that the government reported COVID-19 data before it was declared a pandemic by the WHO . [5,6] The last report on Zika to the WHO was in 2015. [5]

- [1] Ministry of Public Health and Social Assistance. "Dirección de Regulación, Vigilancia y Control de la Salud". [<https://www.mspas.gob.gt/index.php/institucional/unidades-departamentos/regulacion-vigilancia-y-control-de-la-salud>] Accessed 28 November 2020
- [2] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 28 November 2020
- [3] Department of Epidemiology. "Misión visión". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 28 November 2020
- [4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [5] WHO. 2020. "Emergencies preparedness, response". [<https://www.who.int/csr/don/archive/country/gtm/en/>] Accessed 29 November 2020
- [6] WHO Guatemala. "Inicio". [<https://www.paho.org/es/guatemala>] Accessed 29 November 2020

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is public evidence that the government of Guatemala operates an electronic reporting surveillance system at both the national and sub-national level. The Health Management Information System ("Sistema de Información Gerencial de Salud", SIGSA) is a set of procedures that obtain, process, store and disseminate health information in Guatemala. [1] The Ministry of Public Health and Social Assistance (MSPAS) has published a flow chart that summarizes how the system works. According to chart, information is collected and verified manually at hospitals, clinics and laboratories. [2] The manual information is then sent to and consolidated at the district level, where it is entered into the electronic system, once a week on Tuesdays. [2] The district-level (i.e. subnational) electronic information is then sent to MSPAS, which consolidates and reviews the information. Once it has been verified, the information is disseminated once a week on Mondays. [2] The Centers for Disease Control and Prevention (CDC) have also developed an electronic system to monitor influenza and a m-Health application that allows users to report symptoms that can be monitored at the national level. However, there is no additional information on whether these projects are active and used. [3,4] Websites for the National Laboratory and the Department of Epidemiology do not have additional information. [5,6]

- [1] Sistema de Información Gerencial de Salud. "Sistema de Información Gerencial de Salud". [<https://sigsa.mspas.gob.gt/sigsa/que-es-sigsa>] Accessed 28 November 2020
- [2] Sistema de Información Gerencial de Salud. "Flujo de información". [<https://sigsa.mspas.gob.gt/descargas/FlujoInformacionSIGSA-MSPAS.pdf>] Accessed 29 November 2020
- [3] Centers for Disease Control and Prevention. "Global Health - Guatemala". [<https://www.cdc.gov/globalhealth/countries/guatemala/>] Accessed 29 November 2020
- [4] SciDevNet. 2017. "Guatemala: usan celulares para detectar casos de influenza". [<https://www.scidev.net/america-latina/comunicacion/noticias/guatemala-usan-celulares-para-detectar-casos-de-influenza.html>] Accessed 29 November 2020
- [5] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 29 November 2020
- [6] Department of Epidemiology. 2018. "Misión visión". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 29 November 2020

2.3.2b

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

Yes = 1, No = 0

Current Year Score: 0

Guatemala's electronic reporting surveillance system does collect ongoing or real-time laboratory data but there is a lag of more than a week. The Health Management Information System ("Sistema de Información Gerencial de Salud", SIGSA) is a set of processes that obtain, process, store and disseminate health information in Guatemala. [1] The information is collected and verified at hospitals, clinics and laboratories, and there is no requirement at this stage for the information to be electronic. [2] Information is then consolidated at the district level and entered into the electronic system, once a week on Tuesdays. [2] The Ministry of Public Health and Social Assistance (MSPAS) consolidates and reviews the information. Once it has been verified, the information is published and disseminated once a week on Mondays. [2] The Centers for Disease Control and Prevention (CDC) have also developed an electronic system to monitor influenza and a m-Health application that allows users to report symptoms that can be monitored at the national level. However, there is no additional information on whether these projects are active and used. [3,4] Websites for the National Laboratory and the Department of Epidemiology do not have additional information. [5,6]

[1] Sistema de Información Gerencial de Salud. "Sistema de Información Gerencial de Salud".

[<https://sigsa.mspas.gob.gt/sigsa/que-es-sigsa>] Accessed 29 November 2020

[2] Sistema de Información Gerencial de Salud. "Flujo de información".

[<https://sigsa.mspas.gob.gt/descargas/FlujoInformacionSIGSA-MSPAS.pdf>] Accessed 29 November 2020

[3] Centers for Disease Control and Prevention. "Global Health - Guatemala".

[<https://www.cdc.gov/globalhealth/countries/guatemala/>] Accessed 29 November 2020

[4] SciDevNet. 2017. "Guatemala: usan celulares para detectar casos de influenza". [<https://www.scidev.net/america-latina/comunicacion/noticias/guatemala-usan-celulares-para-detectar-casos-de-influenza.html>] Accessed 29 November 2020

[5] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 29 November 2020

[6] Department of Epidemiology. 2018. "Mision vision". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 29 November 2020

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 0

There is no public evidence that electronic health records are used in Guatemala. The websites for the Ministry of Public Health and Social Assistance, National Laboratory, and Department of Epidemiology do not mention the use of electronic health records. [1,2,3] According to the 2016 World Health Organization's country profile on Guatemala, there is no national electronic health record (EHR) system. [4] As of 2016, there is no public evidence of a regulatory framework for EHR from WHO or PAHO. [5,6]

- [1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".
[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 29 November 2020
- [2] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 24 November 2020
- [3] Department of Epidemiology. 2018. "Mision vision". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>]
Accessed 24 November 2020
- [4] World Health Organization. Country profile - Guatemala, [www.who.int/goe/publications/atlas/2015/gtm.pdf] Accessed 24 November 2020
- [5] PAHO. "Guatemala eHealth Country Profile".
[https://www.paho.org/ict4health/index.php?option=com_content&view=article&id=9736:guatemala&Itemid=0&lang=en]
Accessed 29 November 2020
- [6] World Health Organization. "Strategy and Plan of action on eHealth: Midterm review (CD158/INF/13) (2016)".
[http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=34599&Itemid=270&lang=en]
Accessed 29 November 2020

2.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that electronic health records are used in Guatemala. The websites for the Ministry of Public Health and Social Assistance, National Laboratory, and Department of Epidemiology do not mention the use of electronic health records. [1,2,3] According to the 2016 World Health Organization's country profile on Guatemala, there is no national electronic health record (EHR) system. [4] As of 2016, there is no public evidence of a regulatory framework for EHR from WHO or PAHO. [5,6]

- [1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".
[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 29 November 2020
- [2] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 24 November 2020
- [3] Department of Epidemiology. 2018. "Mision vision". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>]
Accessed 24 November 2020
- [4] World Health Organization. Country profile - Guatemala, [www.who.int/goe/publications/atlas/2015/gtm.pdf] Accessed 24 November 2020
- [5] PAHO. "Guatemala eHealth Country Profile".
[https://www.paho.org/ict4health/index.php?option=com_content&view=article&id=9736:guatemala&Itemid=0&lang=en]
Accessed 29 November 2020
- [6] World Health Organization. "Strategy and Plan of action on eHealth: Midterm review (CD158/INF/13) (2016)".
[http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=34599&Itemid=270&lang=en]
Accessed 29 November 2020

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence of data standards to ensure data is comparable (e.g. ISO standards) because there is no public evidence that electronic health records are in use. The websites for the Ministry of Public Health and Social Assistance, National Laboratory, and Department of Epidemiology do not mention the use of electronic health records or data comparability issues. [1,2,3] According to the 2016 World Health Organization's country profile on Guatemala, there is no national electronic health record (EHR) system. [4] As of 2016, there is no public evidence of a regulatory framework for EHR from WHO or PAHO. [5,6]

[1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 29 November 2020

[2] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 24 November 2020

[3] Department of Epidemiology. 2018. "Mision vision". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 24 November 2020

[4] World Health Organization. Country profile - Guatemala, [www.who.int/goe/publications/atlas/2015/gtm.pdf] Accessed 24 November 2020

[5] PAHO. "Guatemala eHealth Country Profile".

[https://www.paho.org/ict4health/index.php?option=com_content&view=article&id=9736:guatemala&Itemid=0&lang=en] Accessed 29 November 2020

[6] World Health Organization. "Strategy and Plan of action on eHealth: Midterm review (CD158/INF/13) (2016)".

[http://www.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=34599&Itemid=270&lang=en] Accessed 29 November 2020

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence to conclude that Guatemala has established mechanisms at the relevant ministries responsible for animal, human and wildlife surveillance to share data (such as through mosquito surveillance, brucellosis surveillance, etc.). Relevant ministries have disease surveillance programmes, but there is no evidence of sharing mechanisms amongst the programmes. The Ministry of Public Health and Social Assistance (MSPAS) conducts surveillance on outbreaks of the Zika virus, and it monitors the mosquito population. [1] Specifically, the General Direction of Health Regulation, Surveillance and Control (Direccion General de Regulacion, Vigilancia y Control de la Salud) surveys the population of mosquito larvae to determine the presence of *Aedes aegypti*. [2] Meanwhile, the Ministry of Agriculture, Livestock and Nutrition (MAGA) conducts surveillance on brucellosis in bovine populations, but there is no evidence of sharing this data with other departments in the government. [3] Websites for the National Laboratory and Department of Epidemiology and the Ministry of the Environment and Natural Resources do not have additional public information. [4,5,6]

[1] Ministry of Public Health and Social Assistance. "Regulación, Vigilancia y Control de la Salud".

[<http://www.mspas.gob.gt/index.php/institucional/unidades-departamentos/regulacion-vigilancia-y-control-de-la-salud>] Accessed 29 November 2020

[2] Direccion General de Regulacion. "Vigilancia y Control de la Salud, Manual operativo de vigilancia y control entomológico de aedes aegypti".

[[http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20egypti%20\(VIRTUAL\).pdf](http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20egypti%20(VIRTUAL).pdf)] Accessed 29 November 2020

[3] Ministry of Agriculture and Livestock. "Programa de brucelosis y tuberculosis". [http://visar.maga.gob.gt/?page_id=919] Accessed 29 November 2020

[4] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 29 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 29 November 2020

[6] Ministry of the Environment and Natural Resources. "Productos y servicios". [http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 29 November 2020

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient information that Guatemala makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites at least once a week.

The Health Management Information System ("Sistema de Información Gerencial de Salud", SIGSA) is a set of processes that obtain, process, store and disseminate health information in Guatemala. [1] The data for some diseases, including COVID-19, malaria, dengue fever, chikungunya and zika, are available online. [2,3,4] The Department for Epidemiology also publishes de-identified health surveillance data of other disease outbreaks. For example, it publishes data on arbovirolosis, parasites and respiratory diseases, with a lag of about one month. [5] In response to the COVID-19 pandemic, the Ministry of Health and Public Services publishes de-identified health surveillance data on within 24 hours. [2]

[1] Sistema de Información Gerencial de Salud. "Sistema de Información Gerencial de Salud". [<https://sigsa.mspas.gob.gt/sigsa/que-es-sigsa>] Accessed 29 November 2020

[2] Ministry of Public Health and Social Assistance. "Situación de COVID-19 en Guatemala". [<https://tablerocovid.mspas.gob.gt/>] Accessed 29 November 2020

[3] Sistema de Información Gerencial de Salud. "Datos De Salud". [<https://sigsa.mspas.gob.gt/datos-de-salud>] Accessed 29 November 2020

[4] Sistema de Información Gerencial de Salud. "Enfermedades Transmitidas por Vectores". [<https://sigsa.mspas.gob.gt/datos-de-salud/morbilidad/enfermedades-transmitidas-por-vectores>] Accessed 29 November 2020

[5] Department for Epidemiology. "Situación de Epidemiológicas". [<http://epidemiologia.mspas.gob.gt/informacion/salas-situacionales/vigilancia-epidemiologica>] Accessed 29 November 2020

2.4.3b

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

Yes = 1 , No = 0

Current Year Score: 1

Guatemala makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites. The Ministry of Public Health and Social Assistance (MSPAS) has a webpage with information that is updated daily on the number of cases, mortality rate, and breakdowns by age and gender. [1]

[1] Ministry of Public Health and Social Assistance. "Situacion de COVID-19 en Guatemala". [https://tablerocovid.mspas.gob.gt/] Accessed 29 November 2020

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Guatemala has laws, regulations or guidelines that specifically safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. The framework for data protection is The Law on Protection of Personal Data, which was passed in 2009. The law guarantees data protection for all persons and legal persons in the country. Any entities that collect and process personal data are required to ensure the protection of personal data, which include any data that can identify a person's race, political opinions, religion, socioeconomic status, biomedical or genetic information, sexual history, or financial history, among others. [1] A 2013 assessment by the WHO noted that the Ministry of Health and Public Assistance should work to define a "health information policy that includes preparation of a legal framework and establishing data standards, confidentiality protocols, and data security." [2] There is no additional information from the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock, the Ministry of the Environment and Natural Resources, the National Laboratory and the Department of Epidemiology. [3,4,5,6,7]

[1] Government of Guatemala. 2009. "Ley de proteccion de datos personales".

[http://www.oas.org/es/sla/ddi/proteccion_datos_personales_dn_guatemala.asp] Accessed 29 November 2020

[2] WHO. 2013. "Optimize Guatemala Report".

[http://www.who.int/immunization/programmes_systems/supply_chain/optimize/guatemala_optimize_report.pdf] Accessed 24 January 2019

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 29 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020

[5] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 29 November 2020

[6] National Laboratory. "Servicios". [http://portal.lns.gob.gt/index.php/servicios] Accessed 29 November 2020

[7] Department of Epidemiology. 2018. "Mision vision". [http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision] Accessed 29 November 2020

2.4.4b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Guatemala has laws, regulations, or guidelines safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, and include protections from cyber attacks. The framework for data protection is the 'Law on Protection of Personal Data', which was passed in 2009. The law guarantees data protection for all persons and legal persons in the country. Any entities that collect and process personal data are required to ensure the protection of personal data, which include any data that can identify a person's race, political opinions, religion, socioeconomic status, biomedical or genetic information, sexual history, or financial history, among others. However, there is no evidence that protections cover electronic information security breaches such as cyberattacks and ransomware. [1] A 2013 assessment by the WHO noted that the Ministry of Health and Public Assistance should work to define a "health information policy that includes preparation of a legal framework and establishing data standards, confidentiality protocols, and data security." [2] There is no additional information from the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock, the Ministry of the Environment and Natural Resources, the National Laboratory and the Department of Epidemiology. [3,4,5,6,7]

[1] Government of Guatemala. 2009. "Ley de proteccion de datos personales".

[http://www.oas.org/es/sla/ddi/proteccion_datos_personales_dn_guatemala.asp] Accessed 29 November 2020

[2] WHO. 2013. "Optimize Guatemala Report".

[http://www.who.int/immunization/programmes_systems/supply_chain/optimize/guatemala_optimize_report.pdf] Accessed 24 January 2019

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 29 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Ministry of the Environment and Natural Resources. "Productos y servicios".

[http://www.marn.gob.gt/paginas/Productos_y_Servicios] Accessed 29 November 2020

[6] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 29 November 2020

[7] Department of Epidemiology. 2018. "Mision vision". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 29 November 2020

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 0

There is no publicly available evidence that the government has made a commitment via public statements, legislation, and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region for one or more diseases.

Generally, there is no public information about commitments to share data during a public health emergency from the Ministry of Public Health and Social Assistance (MSPAS), the Ministry of Agriculture and Livestock, the National Laboratory, the Department of Epidemiology and the National Coordinator for the Reduction of Disaster. [1,2,3,4,5]

The government has shared disease surveillance information in the past, but there is no evidence of public commitments to do so. The national labs have a formal collaboration program with the Centers for Disease Control and Prevention (CDC) in the United States, but documents describing roles and responsibilities are not available online. [6] During the Zika outbreak of 2015, the national labs worked with the CDC to confirm Zika cases. [7]

Guatemala is also a member of the Latin American Antimicrobial Resistance Surveillance Network (ReLAVRA). [8] The network was formed in 1996 with the support of the Pan American Health Organization in order to obtain reliable, timely and reproducible microbiological data to improve patient care and strengthen surveillance through sustainable quality assurance programs, but does not specifically require the sharing information during a public health emergency. [9] The local WHO website does not have additional information about this. [10] In October 2020, MSPAS participated in an agreement to share information with other Central American governments on COVID-19 Drug Surveillance which is aimed at monitoring the adverse events of medicines used to treat selected patients with COVID-19 in specialized centers in the region, but there is no information about surveillance. [11]

[1] Ministry of Public Health and Social Assistance. April 2018. "Plan Estrategico Institucional Ministerio de Salud Publica y Asistencia Social 2018-2032". [<https://www.mspas.gob.gt/index.php/component/jdownloads/category/47-plan-estrategico-anual>] Accessed 28 November 2020

[2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[3] National Laboratory. "Servicios". [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 29 November 2020

[4] Department of Epidemiology. 2018. "Mision vision". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 29 November 2020

[5] National Coordinator for the Reduction of Disaster. "Política Nacional para la Reducción de Riesgo a los Desastres". [https://www.conred.gob.gt/www/index.php?option=com_content&view=article&id=5237&Itemid=844] Accessed 29 November 2020

[6] WHO. "Lanzan centro de control de enfermedades en Guatemala". [https://www.paho.org/gut/index.php?option=com_content&view=article&id=751:lanzan-centro-de-control-de-enfermedades-en-guatemala&Itemid=441] Accessed 29 November 2020

[7] Ministry of Public Health and Social Assistance. "Guia para la vigilancia". [<http://www.mspas.gob.gt/images/files/zika/GuiaParalavigilanciaymanejodelainfecciondelvirusZikaysusComplicacionesenGuatemala.pdf>] Accessed 29 November 2020

[8] Pan American Health Organization. "ReLAVRA - Países miembros". [https://www.paho.org/hq/index.php?option=com_content&view=article&id=6251:2017-relavra-paises-participantes&Itemid=42428&lang=es] Accessed 29 November 2020

[9] Pan American Health Organization. "Red Latinoamericana de Vigilancia de la Resistencia a los Antimicrobianos - ReLAVRA". [https://www.paho.org/hq/index.php?option=com_content&view=article&id=13682:relavra-home&Itemid=42427&lang=es] Accessed 29 November 2020

[10] Pan American Health Organization. "Guatemala". [<https://www.paho.org/gut/>] Accessed 29 November 2020

[11] Pan American Health Organization. "Central America begins pilot plan for pharmacovigilance of COVID-19 medicines". [<https://www.paho.org/en/news/28-10-2020-central-america-begins-pilot-plan-pharmacovigilance-covid-19-medicines>] Accessed 29 November 2020

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

There is no evidence that Guatemala has a national system in place to provide support at the sub-national level (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of an active or future public health emergency.

The Ministry of Public Health and Social Assistance (MSPAS) does not have information about plans to support contact tracing during a public health emergency. [1] Generally, there is no additional public information about contact tracing during public emergencies from the Ministry of Agriculture and Livestock, the National Laboratory, or the Department of Epidemiology. [2,3,4]

The Centers for Disease Control and Prevention (CDC) in the United States are active in Guatemala work closely with the government in disease research and control, but it has not issued any strategy documents on contact tracing in Guatemala. [5]

[1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[3] National Laboratory of Guatemala. "Homepage". [<http://portal.ins.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[4] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 28 November 2020

[5] Centers for Disease Control and Prevention. "Global Disease Detection Program: Guatemala and Central America". [<https://www.cdc.gov/globalhivtb/where-we-work/region/westernhemisphere/guatemala/guatemala.html>] Accessed 28 November 2020

2.5.1b

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

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

Current Year Score: 0

There is no evidence that Guatemala provides national 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.

The Ministry of Public Health and Social Assistance (MSPAS) does not have information about economic or medical support to allow infected people to self-quarantine. [1] There is no additional public information about this from the Ministry of Agriculture and Livestock, Ministry of Social Development, the National Laboratory, or the Department of Epidemiology. [2,3,4,5] A September 2020 report on Guatemala’s response to the COVID-19 pandemic noted that the government provided shelters and food baskets to forced repatriated citizens (i.e. returned from other countries) so that they could quarantine when they entered the country. [6]

[1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 28 November 2020

[2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[3] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[4] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 28 November 2020

[5] Ministry of Social Development. "Inicio". [<https://www.mides.gob.gt/>]

[6] Reliefweb. "Guatemala COVID-19"

[<https://reliefweb.int/sites/reliefweb.int/files/resources/GT%20Informe%20de%20Situaci%C3%B3n%20No.%208%20EHP-OCR%20COVID19%20200907%20FINAL%20CON%20INSUMOS%20PMA.pdf>] Accessed 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

Guatemala does not makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar). The Ministry of Public Health and Social Assistance (MSPAS) has a webpage with case information that is updated daily on the number of cases, mortality rate, and breakdowns by age and gender, but it does not include contact tracing. [1] There is no additional public information about this from the Ministry of Agriculture and Livestock, the National Laboratory, or the Department of Epidemiology. [2,3,4]

[1] Ministry of Public Health and Social Assistance. "Situación de COVID-19 en Guatemala".

[<https://tablerocovid.mspas.gob.gt/>] Accessed 29 November 2020

[2] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[3] National Laboratory of Guatemala. "Homepage". [<http://portal.lns.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[4] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 28 November 2020

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

There is no evidence that Guatemala has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in response to active or future public health emergencies.

The government is requiring that anyone who wishes to enter into the country must show a negative COVID-19 test that was taken within 72 hours, but there is no information about contract tracing requirements or agreements between the public health system and border authorities. [1] Websites for the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock, the National Laboratory, the Department of Epidemiology, Ministry of Foreign Relations and Guatemalan Institute of Migration do not have additional information about this. [2,3,4,5,6,7]

[1] Ministry of Public Health and Social Assistance. "COVID-19: esto es lo que debes saber si vas a entrar o salir por vía terrestre al territorio nacional". [<https://www.mspas.gob.gt/noticias/noticias-ultimas/5-noticias-mspas/1060-covid-19-esto-es-lo-que-debes-saber-si-vas-a-entrar-o-salir-por-v%C3%ADa-terrestre-al-territorio-nacional.html>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Situación de COVID-19 en Guatemala". [<https://tablerocovid.mspas.gob.gt/>] Accessed 29 November 2020

[3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[4] National Laboratory of Guatemala. "Homepage". [<http://portal.ins.gob.gt/index.php?catid=0&id=8>] Accessed 28 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 28 November 2020

[6] Ministry of Foreign Relations. "Inicio". [<https://www.minex.gob.gt/>] Accessed

[7] Guatemalan Institute of Migration. "Inicio". [<https://igm.gob.gt/>] Accessed 30 November 2020

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 1

There is evidence of applied epidemiology training program (such as FETP) in Guatemala, but no public evidence of resources provided by the government to send citizens to another country to participate in applied epidemiology training programs (such as FETP). The Department of Epidemiology (DE) under the Ministry of Public Health and Social Assistance has information about applied epidemiology field training, which is hosted at Universidad del Valle de Guatemala. [1,2] The DE also describes the requirements to apply for a scholarship, and there is no mention of studying in another country. [1,2] The Centers for Disease Control and Prevention (CDC) confirm that the Central America FETP is located at the University del Valle de Guatemala and that there are three levels of training: basic, intermediate, and advanced. [3] TEPHINET confirms that the programme was founded in 2000, became a member in 2001 and has graduated 1469 students. [4] Websites for the Ministry of Public Health and Social Assistance; the National Laboratories; National Council of Science and Technology; TEPHINET; local WHO office and CDC do not have any additional relevant public information about government funding to send FETP students abroad. [3,4,5,6,7,8]

[1] Department of Epidemiology. "Fortalecimiento de la red epidemiológica".

[<http://epidemiologia.mspas.gob.gt/informacion/desarrollo-epidemiologico/programa-de-epidemiologia-de-campo>]

Accessed 30 November 2020

[2] Universidad del Valle de Guatemala. "Programa de Formación en Epidemiología y Salud Pública".

[<https://www.ces.uvg.edu.gt/page/program/fetp/>] Accessed 30 November 2020

[3] Centers for Disease Control and Prevention. "Global Health: Guatemala".

[<https://www.cdc.gov/globalhealth/countries/guatemala/>]

[4] TEPHINET. "Guatemala Field Epidemiology Training Program". [<https://www.tephinet.org/training-programs/guatemala-field-epidemiology-training-program>] Accessed 30 November 2020

[5] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[6] National Health Laboratory. Servicios. [<http://portal.ins.gob.gt/index.php/servicios>] Accessed 30 November 2020

[7] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 30 November 2020

[8] Pan American Health Organization. "Guatemala". [<https://www.paho.org/gut/>] Accessed 30 November 2020

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence in Guatemala of available field epidemiology training programs that explicitly include animal health professionals. The Centers for Disease Control and Prevention (CDC) confirm that the Central America FETP is located at the University del Valle de Guatemala. The country has implemented the 3-tiered FETP strategy of training at the basic, intermediate, and advanced levels. In 2010, ten veterinarians from the Ministry of Agriculture and Livestock received the basic level course and 31 epidemiologists graduated from the basic level curriculum. [1] The website of the Universidad del Valle de Guatemala that describes the FETP programme does not mention animal health professionals, but a report from 2015 confirmed that professionals from the Ministry of Agriculture and Livestock had participated in that year's programme. [2,3]

[1] Centers for Disease Control and Prevention. "Global Health: Guatemala".

[https://www.cdc.gov/globalhealth/countries/guatemala/] Accessed 30 November 2020

[2] Universidad del Valle de Guatemala. "Programa de Formación en Epidemiología y Salud Pública".

[https://www.ces.uvg.edu.gt/page/program/fetp/] Accessed 30 November 2020

[3] Universidad del Valle de Guatemala. "Niveles básico e intermedio de epidemiología de campo—Guatemala, 2014-2015, Volumen 10, No. 3 Marzo 2015". [https://www.ces.uvg.edu.gt/page/product/niveles-basico-e-intermedio-de-epidemiologia-de-campo-guatemala-2014-2015-volumen-10-no-3-marzo-2015/] Accessed 30 November 2020

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1, No = 0

Current Year Score: 1

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 0

There is no evidence that Guatemala has overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The National Coordinator for Disaster Reduction (CONRED) issued the National Response Plan (PNR) in 2019. The objective of the National Response Plan is to provide the organizational, technical and operational structure to respond to emergencies or disasters, and to define guidelines for the recovery phase. The plan is based on inter-institutional coordination and outlines general guidelines to respond to emergencies, but it does not specifically address planning for diseases with epidemic or pandemic potential. [1] In response to the Zika virus and COVID-19, the Ministry of Public Health and Social Assistance (MSPAS) published information about preventative recommendations, but it has not issued any emergency response plan to address potential pandemics.

[2,3,4] Websites for the National Laboratory and Department of Epidemiology do not have additional information. [5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "El virus zika". [<http://www.mspas.gob.gt/index.php/institucional/virus-zika>] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19" [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 30 November 2020

[4] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

3.1.1b

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

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

Current Year Score: 0

There is no evidence that Guatemala has overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The National Coordinator for Disaster Reduction (CONRED) issued the National Response Plan (PNR) in 2019. The objective of the National Response Plan is to provide the organizational, technical and operational structure to respond to emergencies or disasters, and to define guidelines for the recovery phase. The plan is based on inter-institutional coordination and outlines general guidelines to respond to emergencies, but it does not specifically address planning for diseases with epidemic or pandemic potential. [1] In response to the Zika virus and COVID-19, the Ministry of Public Health and Social Assistance (MSPAS) published information about preventative recommendations, but it has not issued any emergency response plan to address potential pandemics. [2,3,4] Websites for the National Laboratory and Department of Epidemiology do not have additional information. [5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "El virus zika". [<http://www.mspas.gob.gt/index.php/institucional/virus-zika>] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19" [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 30 November 2020

[4] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

3.1.1c

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

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

Current Year Score: 0

There is no evidence that Guatemala has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The National Coordinator for Disaster Reduction (CONRED) issued the National Response Plan (PNR) in 2019. The objective of the National Response Plan is to provide the organizational, technical and operational structure to respond to emergencies or disasters, and to define guidelines for the recovery phase. The plan is based on inter-institutional coordination and outlines general guidelines to respond to emergencies, but it does not specifically address planning for diseases with epidemic or pandemic potential. [1] In response to the Zika virus and COVID-19, the Ministry of Public Health and Social Assistance (MSPAS) published information about preventative recommendations, but it has not issued any emergency response plan to address potential pandemics. [2,3,4] Websites for the National Laboratory and Department of Epidemiology do not have additional information. [5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "El virus zika". [<http://www.mspas.gob.gt/index.php/institucional/virus-zika>] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19" [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 30 November 2020

[4] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[6] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Guatemala has specific mechanisms for engaging with the private sector to assist with outbreak emergency preparedness and response. The National Coordinator for Disaster Reduction (CONRED) issued the national emergency response plan in 2019 but the plan does not include specific measure for outbreak emergency preparedness and

response. [1] CONRED does not publish any documents about collaboration with the private sector in response to outbreaks. [2] Websites for the Ministry of Public Health and Social Assistance, Ministry of Agriculture and Livestock, National Laboratory and Department of Epidemiology do not have additional information about this. [3, 4, 5, 6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[https://conred.gob.gt/documentos/planes/PNR.pdf] Accessed 30 November 2020

[2] National Coordinator for Disaster Reduction. "Como coordina". [https://conred.gob.gt/site/como-coordina] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 30 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [https://www.maga.gob.gt/politicas/] Accessed 28 November 2020

[5] National Laboratory. "Inicio". [http://portal.lns.gob.gt/] Accessed 30 November 2020

[6] Department of Epidemiology. "Vision mission". [http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision] Accessed 30 November 2020

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 1

There is evidence that Guatemala has guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic, but only for one disease (COVID-19).

In response to the COVID-19 pandemic, the government has issued guidelines for NPIs to reduce the spread of the disease. NPIs include social distancing, hand washing, avoiding crowds, and mask wearing, among others. [1,2]

The National Coordinator for Disaster Reduction (CONRED), which is responsible for planning emergency response measures, issued the national emergency response plan in 2019 but the plan does not include specific measures for epidemics or pandemics. [3] There are no other public documents from CONRED that address public health emergencies. [4] Websites for the Ministry of Public Health and Social Assistance, Ministry of Agriculture and Livestock, National Laboratory and Department of Epidemiology do not have additional information about plans for implementing NPIs in general emergencies. [5,6,7,8,]

[1] Ministry of Public Health and Social Assistance. "Coronavirus 19" [https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html] Accessed May 2021.

[2] Ministry of Public Health and Social Assistance. "Preguntas frecuentes".

[https://www.who.int/es/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/coronavirus-disease-covid-19] Accessed May 2021.

[3] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[https://conred.gob.gt/documentos/planes/PNR.pdf] Accessed May 2021

[2] National Coordinator for Disaster Reduction. "Como coordina". [https://conred.gob.gt/site/como-coordina] Accessed May 2021

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed May 2021

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed May 2021

[5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed May 2021

[6] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed May 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: 0

There is no evidence that Guatemala has activated their national emergency response plan for an infectious disease outbreak in the past year or completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year.

There is no evidence that Guatemala has developed a national emergency response plan for an infectious disease outbreak, or that it developed a specific plan to address COVID-19, from the National Coordinator for Disaster Reduction (CONRED), Ministry of Public Health and Social Assistance, Ministry of Agriculture and Livestock, National Laboratory, or Department of Epidemiology. [1,2,3,4,5] The WHO does not have any evidence that that Guatemala completed a national-level biological threat-focused exercise. [6,7,8]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[4] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[6] World Health Organization. "Simulation exercise". [<https://extranet.who.int/sph/simulation-exercise>]

[7] World Health Organization. "Guatemala" [https://www.who.int/gho/countries/gtm/country_profiles/en/] Accessed 30 November 2020

[8] World Health Organization. "Latin America and the Caribbean".

[https://www.who.int/management/country/latinamerica_caribbean/en/] Accessed 30 November 2020

3.2.1b

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

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

Current Year Score: 0

There is no evidence that in the past year Guatemala 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. There is no evidence from the National Coordinator for Disaster Reduction (CONRED), Ministry of Public Health and Social Assistance, Ministry of Agriculture and Livestock, National Laboratory, or Department of Epidemiology. [1, 2, 3, 4, 5] The WHO does not have any evidence that that Guatemala identified a list of gaps and best practices in emergency response. [6, 7, 8, 9]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[4] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[6] World Health Organization. "Simulation exercise". [<https://extranet.who.int/sph/simulation-exercise>]

[7] World Health Organization. "Guatemala" [https://www.who.int/gho/countries/gtm/country_profiles/en/] Accessed 30 November 2020

[8] World Health Organization. "Latin America and the Caribbean".

[https://www.who.int/management/country/latinamerica_caribbean/en/] Accessed 30 November 2020

[9] World Health Organization. "After action review." [<https://extranet.who.int/sph/after-action-review>] Accessed 9 December 2020

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Guatemala has undergone a national-level biological threat-focused exercise that has included private sector representatives in the past year. There is no evidence that Guatemala has undergone a national-level biological threat-focused exercise in the past year from the National Coordinator for Disaster Reduction (CONRED), Ministry of Public Health and Social Assistance, Ministry of Agriculture and Livestock, National Laboratory, or Department of Epidemiology. [1-5] The WHO does not have any evidence that that Guatemala completed a national-level biological threat-focused exercise. [6,7,8]

- [1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)". [<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020
- [2] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020
- [3] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020
- [4] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020
- [5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020
- [6] World Health Organization. "Simulation exercise". [<https://extranet.who.int/sph/simulation-exercise>]
- [7] World Health Organization. "Guatemala" [https://www.who.int/gho/countries/gtm/country_profiles/en/] Accessed 30 November 2020
- [8] World Health Organization. "Latin America and the Caribbean". [https://www.who.int/management/country/latinamerica_caribbean/en/] Accessed 30 November 2020

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is public evidence that Guatemala has an Emergency Operations Center (EOC) for generalized emergencies and for health-related emergencies. The National Coordinator for the Reduction of Disaster (CONRED) confirms that it runs a national EOC. The national EOC is responsible for emergency services, attention to the public, logistics and infrastructure. [1] News reports confirm that the Ministry of Public Health and Social Assistance (MSPAS) has an EOC. In May 2018, the MSPAS EOC participated in a workshop on integrating emergency response efforts. The workshop was supported by the Spanish government and the WHO. [2] An undated report from WHO highlights an emergency preparedness workshop where the EOC at the MSPAS met with several hospitals to discuss emergency simulations. [3] Websites for MSPAS, the National Laboratory and the Department of Epidemiology do not have additional information. [4,5,6]

- [1] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/como-coordina/>] Accessed 30 November 2020
- [2] Cooperacion Espanola. 2018. "Fortalecer la resiliencia de los sistemas de salud para mejorar la calidad de la respuesta a emergencias". [<http://intercoonec.aecid.es/noticias/fortalecer-la-resiliencia-de-los-sistemas-de-salud-para-mejorar-la-calidad-de-la-respuesta-a-emergencias>] Accessed 30 November 2020
- [3] World Health Organization. "Hospitales fortalecen capacidades de los centros de operaciones de emergencia institucional". [https://www.paho.org/gut/index.php?option=com_content&view=article&id=1015:hospitales-fortalecen-capacidades-de-centros-de-operaciones-de-emergencia-institucional&Itemid=526] Accessed 30 November 2020
- [4] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020
- [5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020
- [6] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that the Emergency Operations Center (EOC) has a requirement to conduct a drill for a public health emergency scenario at least once per year or that they conduct a drill at least once per year.

The National Coordinator for the Reduction of Disaster (CONRED) confirms that it runs an EOC, but does not share information about any requirements to run annual drills. [1] News reports confirm that the Ministry of Public Health and Social Assistance (MSPAS) has an EOC that has held workshops to plan emergency simulations, but there is no evidence that drills occur annually. In May 2018, the MSPAS EOC participated in a workshop on integrating emergency response efforts. The workshop was supported by the Spanish government and the WHO. [2]

An undated report from WHO highlights an emergency preparedness workshop where the EOC at the MSPAS met with several hospitals to discuss emergency simulations. [3] In May 2018, the MSPAS EOC participated in a workshop on integrating emergency response efforts. The workshop was supported by the Spanish government and the WHO. [4] Websites for MSPAS, the National Laboratory and the Department of Epidemiology do not have additional information. [5,6,7]

[1] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/como-coordina/>] Accessed 30 November 2020

[2] Cooperacion Espanola. 2018. "Fortalecer la resiliencia de los sistemas de salud para mejorar la calidad de la respuesta a emergencias". [<http://intercoonec.aecid.es/noticias/fortalecer-la-resiliencia-de-los-sistemas-de-salud-para-mejorar-la-calidad-de-la-respuesta-a-emergencias>] Accessed 30 November 2020

[3] World Health Organization. "Hospitales fortalecen capacidades de los centros de operaciones de emergencia institucional". [https://www.paho.org/gut/index.php?option=com_content&view=article&id=1015:hospitales-fortalecen-capacidades-de-centros-de-operaciones-de-emergencia-institucional&Itemid=526] Accessed 30 November 2020

[4] WHO. "OMS estrategia de cooperación: resumen: Guatemala". [<http://apps.who.int/iris/handle/10665/258930>] Accessed 30 November 2020

[5] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[6] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[7] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence to show that the EOCs in Guatemala can conduct, or have 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. Websites for the National Coordinator for the Reduction of Disaster (CONRED) and the Ministry of Public Health and Social Assistance (MSPAS) do not have relevant information about this. [1,2] There is evidence that exercises are conducted, but not that they have time limits. In May 2018, the MSPAS EOC participated in a workshop on integrating emergency response efforts. The workshop was supported by the Spanish government and the WHO. [3] Websites for the National Laboratory and the Department of Epidemiology do not have additional information. [4,5] The WHO does not have any evidence that it has participated in such exercises in Guatemala. [6,7,8]

[1] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/como-coordina/>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[4] Cooperacion Espanola. 2018. "Fortalecer la resiliencia de los sistemas de salud para mejorar la calidad de la respuesta a emergencias". [<http://intercoonecna.aecid.es/noticias/fortalecer-la-resiliencia-de-los-sistemas-de-salud-para-mejorar-la-calidad-de-la-respuesta-a-emergencias>] Accessed 30 November 2020

[5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 25 January 2019

[6] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[7] WHO Strategic Partnership Portal. "Simulation Exercise". [<https://extranet.who.int/spp/simulation-exercise>] Accessed 30 November 2020

[8] WHO Strategic Partnership Portal. "After Action Review". [<https://extranet.who.int/sph/after-action-review>] Accessed 30 November 2020

[9] WHO Guatemala. "Inicio". [<https://www.paho.org/gut/>] Accessed 30 November 2020

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no public evidence that Guatemala has carried out an exercise to respond to a potential deliberate biological event or established standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event. The 2019 National Response Plan that was issued by the National Coordinator for the Reduction of Disaster (CONRED) describes the basic coordination between the Ministry of Governance (Ministerio de Gobernacion MG), which oversees security, and other Ministries including the Ministry of Public Health and Social Assistance (MSPAS). However, the response plan does not specifically detail procedures for a biological

event. [1] Websites for CONRED, MSPAS and the MG do not have additional information about this. [2,3,4]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>]

Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[4] Ministry of Governance. "Legislación". [<http://mingob.gob.gt/legislacion/>] Accessed 30 November 2020

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Guatemala 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. Guatemala has established the Alert System (Sistema de Alerta), which is described in the 2019 National Response Plan, but it is not specifically intended for public health emergencies. [1] Websites for the Ministry of Public Health and Social Assistance, Ministry of Governance, the National Laboratory, Department of Epidemiology and National Coordinator for the Reduction of Disaster (CONRED) and the local WHO office do not have publicly available documents that describe an emergency communication system for public health emergencies or efforts to reach populations with different communication needs. [2,3,4,5,6,7]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of Governance. "Legislación". [<http://mingob.gob.gt/legislacion/>] Accessed 30 November 2020

[4] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[6] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>]

Accessed 30 November 2020

[7] WHO Guatemala. "Inicio". [<https://www.paho.org/es/guatemala>] Accessed 30 November 2020

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no public evidence to conclude that Guatemala has a risk communication plan that is specifically intended for use during a public health emergency. Guatemala has established the Alert System (Sistema de Alerta), which is described in the 2019 National Response Plan. The plan was issued by the National Coordinator for Disaster Reduction (CONRED) and covers responsibilities for planning and implementation of a national response during an emergency. [1] The risk alert system is managed by the Secretary of CONRED and uses a colour system to label the severity of an emergency. The system can be used during a public health emergency to communicate with the public, but does not have specific considerations for public health emergencies. [1] There is some public evidence of capacity building to strengthen risk communication within the country during a public health emergency, but no details about the system. In response to the Zika outbreak, the WHO and PAHO gave a training session to the MSPAS, CONRED, the local Red Cross and the Guatemalan Institute of Social Security (IGSS) to strengthen risk communication during an emergency, but there is no public information about how the system works or whom it targets. [2] Websites for the Ministry of Public Health and Social Assistance, Ministry of Governance, the National Laboratory, Department of Epidemiology, National Coordinator for the Reduction of Disaster (CONRED) and the local WHO office do not share additional information about this. [3,4,5,6,7,8]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] WHO Guatemala. "Guatemala fortalece la comunicación de riesgo en el contexto del virus Zika".

[https://www.paho.org/gut/index.php?option=com_content&view=article&id=914:guatemala-fortalece-comunicacion-de-riesgo-en-contexto-del-virus-zika&Itemid=526] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[4] Ministry of Governance. "Legislación". [<http://mingob.gob.gt/legislacion/>] Accessed 30 November 2020

[5] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[6] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[7] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[8] WHO Guatemala. "Inicio". [<https://www.paho.org/es/guatemala>] Accessed 30 November 2020

3.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the risk communication plan in Guatemala (or other legislation, regulation or strategy document used to guide national public health response) designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. Guatemala has established the Alert System (Sistema de Alerta), which is described in the 2019 National Response Plan, but it is not specifically intended for public health emergencies and does not designate a primary spokesperson during public health emergencies. [1] Websites for the Ministry of Public Health and Social Assistance, Ministry of Governance, the National Laboratory, Department of Epidemiology and National Coordinator for the Reduction of Disaster (CONRED) and the local WHO office do not have publicly available documents about this. [2,3,4,5,6,7]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of Governance. "Legislación". [<http://mingob.gob.gt/legislacion/>] Accessed 30 November 2020

[4] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[5] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[6] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[7] WHO Guatemala. "Inicio". [<https://www.paho.org/es/guatemala>] Accessed 30 November 2020

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 1

There is evidence that in the past year, the public health system has actively and regularly 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. The Ministry of Public Health and Social Assistance (MSPAS) has shared information in the last year about COVID-19. The MSPAS has a website on information about COVID-19 that includes links to frequently asked questions, de-identified case information and social media posts. [1] The MSPAS has social media posts on Youtube, Facebook and radio spots. [2] The Facebook account has over 830000 followers and posts daily about COVID-19 updates. [3] The Twitter account has about 118000 followers and includes posts about COVID-19, vaccinations and respiratory illnesses. [4] The YouTube account has about 1100 subscribers and videos cover topics such as staying healthy during the COVID-19 pandemic. [5]

[1] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Categoría: Coronavirus COVID-19".

[<https://www.mspas.gob.gt/index.php/component/jdownloads/category/432-coronavirus-2019-ncov?Itemid=-1>] Accessed

30 November 2020

[3] MSPAS. "Facebook account". [<https://www.facebook.com/MinisteriodeSaludPublicayAsistenciaSocial/>] Accessed 9 December 2020

[4] MSPAS. "Twitter account". [<https://twitter.com/MinSaludGuate/>] Accessed 9 December 2020

[5] MSPAS. "Youtube account". [<https://www.youtube.com/user/webmasterSigsaMspas/featured>] Accessed 9 December 2020

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence that senior leaders (president or ministers) in Guatemala have shared misinformation or disinformation on infectious diseases in the past two years. Websites for the Ministry of Public Health and Social Assistance, Ministry of Governance, the National Laboratory, Department of Epidemiology and National Coordinator for the Reduction of Disaster (CONRED) and the local WHO office do not have publicly available documents about this. [1,2,3,4,5,6] A web search did not yield any results

[1] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[2] Ministry of Governance. "Legislación". [<http://mingob.gob.gt/legislacion/>] Accessed 30 November 2020

[3] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 30 November 2020

[4] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 30 November 2020

[5] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[6] WHO Guatemala. "Inicio". [<https://www.paho.org/es/guatemala>] Accessed 30 November 2020

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 65

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: 118.73

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: 14.0

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: 14.0

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 public evidence that in the past year, Guatemala 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.

Websites for the WHO Disease Outbreak News and OIE Weekly disease do not show that Guatemala has issued any restrictions on the import/export of medical goods due infectious disease risk. [1,2] Websites for the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock and the Customs Agency do not have additional information. [3,4,5] Prensa Libre, one of the largest newspapers in the country, does not have information about this. [6]

[1] WHO Disease Outbreak News. "Disease Outbreak News (DONs)". [<https://www.who.int/csr/don/en/>] Accessed 30 November 2020

[2] OIE. "OIE Weekly". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Superintendencia de Administracion Tributaria. "Noticias". [<https://portal.sat.gob.gt/portal/noticias/>] Accessed 30 November 2020

[6] Prensa Libre, Inicio, [<http://www.prensalibre.com/>] Accessed 30 November 2020

3.7.1b

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

Yes = 0 , No = 1

Current Year Score: 1

There is no public evidence that in the past year, Guatemala 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. Websites for the WHO Disease Outbreak News and OIE Weekly disease do not show that Guatemala has issued any restrictions on import/export of non-medical goods due infectious disease risk. [1,2] Websites for the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock and the Customs Agency do not have additional information. [3,4,5] Prensa Libre, one of the largest newspapers in the country, does not have information about this. [6]

[1] WHO Disease Outbreak News. "Disease Outbreak News (DONs)". [<https://www.who.int/csr/don/en/>] Accessed 30 November 2020

[2] OIE. "OIE Weekly". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Superintendencia de Administracion Tributaria. "Noticias". [<https://portal.sat.gob.gt/portal/noticias/>] Accessed 30 November 2020

[6] Prensa Libre, Inicio, [<http://www.prensalibre.com/>] Accessed 30 November 2020

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0 , No = 1

Current Year Score: 0

There is evidence that in the past year, Guatemala has implemented a travel ban due to an infectious disease outbreak. The local press and US Embassy reported that international borders were closed from March 2020 to September 2020 due to the COVID-19 pandemic. [1,2] However, websites for the WHO Disease Outbreak News and OIE Weekly disease do not show that Guatemala has issued any restrictions on travelers due infectious disease risk. [3,4] Websites for the Ministry of Public Health and Social Assistance, the Ministry of Agriculture and Livestock and the Customs Agency do not have additional information about travel bans without international or bilateral support. [5,6,7]

[1] US Embassy in Guatemala. "Alerts and messages". [<https://gt.usembassy.gov/u-s-citizen-services/security-and-travel-information/>] Accessed 10 December 2020.

[2] El Economista. "Guatemala: reapertura de Aeropuerto La Aurora y fronteras: lineamientos que se deben cumplir" [<https://www.economista.net/actualidad/Guatemala-reapertura-de-Aeropuerto-La-Aurora-y-fronteras-lineamientos-que-se-deben-cumplir-20200917-0007.html>] Accessed 10 December 2020

[3] WHO Disease Outbreak News. "Disease Outbreak News (DONs)". [<https://www.who.int/csr/don/en/>] Accessed 30 November 2020

[4] OIE. "OIE Weekly". [https://www.oie.int/wahis_2/public/wahid.php/Diseaseinformation/WI] Accessed 30 November 2020

[5] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] Superintendencia de Administracion Tributaria. "Noticias". [<https://portal.sat.gob.gt/portal/noticias/>] Accessed 30 November 2020

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 35.49

2018

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 7.37

2018

WHO; national sources

4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Guatemala has a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The General Direction of Human Resources (Dirección General de Recursos Humanos) within the Ministry of Public Health and Social Assistance is responsible for the public health workforce. It does not publish information on the workforce strategy. [1] The Ministry of Work and Ministry of Education do not have additional information about this. [2,3]

[1] Ministry of Public Health and Social Assistance. "Dirección General de Recursos Humanos".

[<https://www.mspas.gob.gt/index.php/institucional/idades-departamentos/recursos-humanos>] Accessed 30 November 2020

[2] Ministry of Work. "Misión, Visión y Objetivos". [<https://www.mintrabajo.gob.gt/index.php/nosotros/mision-vision-objetivos>] Accessed 30 November 2020

[3] Ministry of Education. "Programas y Estrategias". [http://www.mineduc.gob.gt/programas_y_estrategias/] Accessed 30 November 2020

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 44

2017

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Guatemala 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. Websites for the Ministry of Public Health and Social Assistance (MSPAS), the National Laboratory, and the Department of Epidemiology do not have information about isolation units and mechanisms in the country. [1,2,3] The MSPAS website has a list of 11 public hospitals in Guatemala. [4] Websites for the larger hospitals, General Hospital of San Juan of God and Hospital Roosevelt do not have relevant information. [5,6]

- [1] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed 30 November 2020
- [2] National Laboratory. "Inicio". [http://portal.lns.gob.gt/] Accessed 30 November 2020
- [3] Department of Epidemiology. "Vision mission". [http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision] Accessed 30 November 2020
- [4] Ministry of Public Health and Social Assistance. "Sitios web de Hospitales". [https://www.mspas.gob.gt/index.php/servicios/webs-de-hospitales] Accessed 30 November 2020
- [5] General Hospital of San Juan of God. "General Hospital of San Juan of God". [https://hospitalsanjuandedios.mspas.gob.gt/] Accessed 30 November 2020
- [6] Hospital Roosevelt. "Hospital Roosevelt". [https://hospitalroosevelt.gob.gt/] Accessed 30 November 2020

4.1.2c

Does the country meet one of the following criteria?

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Guatemala has demonstrated capacity to expand isolation capacity or developed a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years.

Websites for the Ministry of Public Health and Social Assistance (MSPAS), the National Laboratory, and the Department of Epidemiology do not have information about isolation units and the operations in the country. [1,2,3] The MSPAS website has a list of 11 public hospitals in Guatemala, but it does not cite which, if any, have isolation capacity. [4] Websites for the larger hospitals, General Hospital of San Juan of God and Hospital Roosevelt do not have relevant information. [5,6]

- [1] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas] Accessed May 2021
- [2] National Laboratory. "Inicio". [http://portal.lns.gob.gt/] Accessed May 2021
- [3] Department of Epidemiology. "Vision mission". [http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision] Accessed May 2021
- [4] Ministry of Public Health and Social Assistance. "Sitios web de Hospitales". [https://www.mspas.gob.gt/index.php/servicios/webs-de-hospitales] Accessed 30 November 2020
- [5] General Hospital of San Juan of God. "General Hospital of San Juan of God". [https://hospitalsanjuandedios.mspas.gob.gt/] Accessed May 2021

[6] Hospital Roosevelt. "Hospital Roosevelt". [<https://hospitalroosevelt.gob.gt/>] Accessed 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: 2

There is 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.

The procurement system is a centralized system, Guatecompras, that is available online. [1] Guatemala's Government Procurement Law requires government purchases over Q.900,000 (about USD 121,620) to be submitted for public competitive bidding. Any government acquisition of goods, supplies or services that exceeds Q 90,000 (approximately USD 12,160) is subject to price quotation procedures and public competition through Guatecompras, and this includes the purchase of laboratory and medical supplies. Since March 2004, all government entities, including the Ministries of Health and Agriculture, are required to use Guatecompras, an Internet-based electronic system to track government procurement processes. [2] The Department of Acquisitions and Management is the responsible entity within the Ministry of Health. [3] Guatecompras has procured laboratory equipment and medical equipment for both the Ministry of Public Health and Social Assistance and for the Ministry of Agriculture and Livestock. [4,5]

[1] Guatecompras. "Registro de compradores". [<http://www.guatecompras.gt/Compradores/RegistroResumen.aspx?type=1>] Accessed 30 November 2020

[2] US Department of Commerce. "Guatemala - Selling to the Government". [<https://www.trade.gov/knowledge-product/guatemala-selling-government>] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Departamento de Adquisiciones y Mantenimiento". [<https://www.mspas.gob.gt/index.php/institucional/unidades-departamentos/adquisiciones>] Accessed 30 November 2020

[4] Guatecompras. 2020. "Ministerio de Salud Publica y Asistencia Social".

[<http://www.guatecompras.gt/concursos/consultaConcursos.aspx?&lper=2019&iEnt=9&iUnt=0&o=23&mod=1>] Accessed 30 November 2020

[5] Guatecompras. 2020. "MAGA - Consulta de concursos TERMINADOS ADJUDICADOS".

[<http://www.guatecompras.gt/concursos/consultaConcursos.aspx?&lper=2018&iEnt=12&iUnt=0&o=22&mod=1>] Accessed 30 November 2020

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 0

There is no public evidence that Guatemala has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

The National Response Plan, which addresses public emergencies, does not mention stockpiling medical supplies. [1] Websites for Ministry of Public Health and Social Assistance, Ministry of National Defence, the National Coordinator for the Reduction of Disaster, the Ministry of Governance and the Drug Administration (Departamento de Regulación y Control de Productos Farmacéuticos y Afines) do not have additional information about medical supplies. [2,3,4,5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

[6] Departamento de Regulación y Control de Productos Farmacéuticos y Afines. "Departamento de Regulación y Control de Productos Farmacéuticos y Afines". [<https://medicamentos.mspas.gob.gt/index.php/quienes-somos>] Accessed 30 November 2020

4.2.2b

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

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

Current Year Score: 0

There is no public evidence that Guatemala has stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The National Response Plan, which addresses public emergencies, does not mention stockpiling laboratory supplies. [1] Websites for Ministry of Public Health and Social Assistance, Ministry of National Defence, the National Coordinator for the Reduction of Disaster, the Ministry of Governance and the Drug Administration (Departamento de Regulación y Control de Productos Farmacéuticos y Afines) do not have additional information about the supply laboratory supplies. [2,3,4,5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

[6] Departamento de Regulación y Control de Productos Farmacéuticos y Afines. "Departamento de Regulación y Control de Productos Farmacéuticos y Afines". [<https://medicamentos.mspas.gob.gt/index.php/quienes-somos>] Accessed 30 November 2020

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Guatemala conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency since there is no evidence of a stockpile of medical supplies and countermeasures (e.g. equipment, PPE, vaccines, therapeutics and diagnostics) for national use during a public health emergency.

The National Response Plan, which addresses public emergencies, does not mention stockpiling medical supplies and countermeasures. [1] Websites for Ministry of Public Health and Social Assistance, Ministry of National Defence, the National Coordinator for the Reduction of Disaster, the Ministry of Governance and the Drug Administration (Departamento de Regulación y Control de Productos Farmacéuticos y Afines) do not have additional information about medical supplies and countermeasures. [2,3,4,5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed May 2021

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed May 2021

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed May 2021

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed May 2021

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed May 2021

[6] Departamento de Regulación y Control de Productos Farmacéuticos y Afines. "Departamento de Regulación y Control de Productos Farmacéuticos y Afines". [<https://medicamentos.mspas.gob.gt/index.php/quienes-somos>] Accessed 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 public evidence that Guatemala has a plan, agreement or mechanism to procure or to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

The National Response Plan, which addresses public emergencies, does not mention procuring or manufacturing medical supplies. [1] Websites for Ministry of Public Health and Social Assistance, Ministry of National Defence, the National Coordinator for the Reduction of Disaster, the Ministry of Governance and the Drug Administration (Departamento de Regulación y Control de Productos Farmacéuticos y Afines) do not have additional information about procuring or manufacturing medical supplies. [2,3,4,5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

[6] Departamento de Regulación y Control de Productos Farmacéuticos y Afines. "Departamento de Regulación y Control de Productos Farmacéuticos y Afines". [<https://medicamentos.mspas.gob.gt/index.php/quienes-somos>] Accessed 30 November 2020

4.2.3b

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no public evidence that Guatemala has a plan, agreement or mechanism to procure or to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The National Response Plan, which addresses public emergencies, does not mention procuring or manufacturing laboratory supplies. [1] Websites for Ministry of Public Health and Social Assistance, Ministry of National Defence, the National Coordinator for the Reduction of Disaster, the Ministry of Governance and the Drug Administration (Departamento de Regulación y Control de Productos Farmacéuticos y Afines) do not have additional information about procuring or manufacturing laboratory supplies. [2,3,4,5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

[6] Departamento de Regulación y Control de Productos Farmacéuticos y Afines. "Departamento de Regulación y Control de Productos Farmacéuticos y Afines". [<https://medicamentos.mspas.gob.gt/index.php/quienes-somos>] Accessed 30 November 2020

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Guatemala 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). The National Response Plan, which addresses public emergencies, does not mention dispensing MCMs. [1] Websites for Ministry of Public Health and Social Assistance, Ministry of National Defence, the National Coordinator for the Reduction of Disaster, the Ministry of Governance and the Drug Administration (Departamento de Regulación y Control de Productos Farmacéuticos y Afines) do not have additional information about dispensing MCMs. [2,3,4,5,6]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[5] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

[6] Departamento de Regulación y Control de Productos Farmacéuticos y Afines. "Departamento de Regulación y Control de Productos Farmacéuticos y Afines". [<https://medicamentos.mspas.gob.gt/index.php/quienes-somos>] Accessed 30 November 2020

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

4.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence to conclude that Guatemala has a plan in place to receive health personnel from other countries to respond to a public health emergency. The National Response Plan, which addresses public emergencies, does not mention any agreements to receive international assistance in times of emergency. However, it does state that the secretary of National Coordinator for the Reduction of Disaster (CONRED) is responsible to solicit international help. [1] Websites for Ministry of Public Health and Social Assistance (MSPAS), Ministry of National Defence, the National Coordinator for the Reduction of Disaster and the Ministry of Governance do not have additional information about this. [2,3,4,5]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 30 November 2020

[3] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[4] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[5] Ministry of Governance. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 3

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 65.5

2015

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: 257.06

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no public evidence that the government of Guatemala has issued legislation, a policy or a public statement committing to provide prioritized health care services to healthcare workers who become sick as a result of responding to a public health emergency. The National Response Plan, which describes the country's emergency response plan, does not mention prioritized emergency services to healthcare workers. [1] Website for the Ministry of Public Health and Social Assistance, the National Coordinator for the Reduction of Disaster, the Ministry of National Defence and the Ministry of Governance do not have additional information about this. [2,3,4,5]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Acerca de nosotros". [<https://www.mspas.gob.gt/institucional/acerca-del-mspas.html>] Accessed 9 December 2020

[3] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 30 November 2020

[4] Ministry of National Defense. "Mision y vision". [<https://www.mindef.mil.gt/misionvision/misionvision.html>] Accessed 9 December 2020

[5] Ministry of Governance. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 30 November 2020

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that Guatemala has a system in place for public health officials and healthcare workers to communicate during a public health emergency.

The 2019 National Response Plan, which was issued by the National Coordinator for Disaster Reduction (CONRED), covers responsibilities for planning and implementation of a national response during an emergency. The plan mentions the existence of an alert system between the National Coordinator for the Reduction of Disaster (CONRED) and other departments of government, both national and local. However, the plan does not describe how the system works or specific mechanisms to use during a public health emergency, particularly for two-way communication. [1]

Websites for the Ministry of Public Health and Social Assistance (MSPAS) and the National Coordinator for the Reduction of Disaster (CONRED) do not share public information about any system of communications for public workers during a public health emergency. [2,3] There is some public evidence that risk communication for public health emergencies exists, but it is not described in detail and there is no information about two-way communication. The WHO and PAHO have assisted the MSPAS, CONRED, the local Red Cross and the Guatemalan Institute of Social Security (IGSS) to strengthen risk communication during the Zika virus and COVID-19 outbreaks. [4,5]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Reforma de salud".

[<https://www.mspas.gob.gt/index.php/institucional/reforma-de-salud>] Accessed 1 December 2020

[3] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>] Accessed 1 December 2020

[4] WHO Guatemala. "Guatemala fortalece la comunicación de riesgo en el contexto del virus Zika".

[https://www.paho.org/gut/index.php?option=com_content&view=article&id=914:guatemala-fortalece-comunicacion-de-riesgo-en-contexto-del-virus-zika&Itemid=526] Accessed 1 December 2020

[5] WHO Guatemala. "Pilar: Comunicación de riesgos y participación de la comunidad".

[https://www.paho.org/gut/index.php?option=com_content&view=article&id=1349:pila-comunicacion-de-riesgos-y-participacion-de-la-comunidad&Itemid=526] Accessed 1 December 2020

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that there is a system for public health officials and healthcare workers to communicate during an emergency that encompasses healthcare workers in both the public and private sector.

The 2019 National Response Plan, which was issued by the National Coordinator for Disaster Reduction (CONRED), covers responsibilities for planning and implementation of a national response during an emergency. The plan mentions the existence of an alert system between the National Coordinator for the Reduction of Disaster (CONRED) and other departments of government, both national and local. However, the plan does not describe how the system works or specific mechanisms to use during a public health emergency. [1]

Websites for the Ministry of Public Health and Social Assistance (MSPAS) and the National Coordinator for the Reduction of Disaster (CONRED) do not share public information about any system of communications for public workers during a public health emergency. [2,3] There is some public evidence that risk communication for public health emergencies exists, but it is not described in detail. The WHO and PAHO have assisted the MSPAS, CONRED, the local Red Cross and the Guatemalan Institute of Social Security (IGSS) to strengthen risk communication during the Zika virus and COVID-19 outbreaks. [4,5]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] Ministry of Public Health and Social Assistance. "Reforma de salud".

[<https://www.mspas.gob.gt/index.php/institucional/reforma-de-salud>] Accessed 1 December 2020

[3] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>]

Accessed 1 December 2020

[4] WHO Guatemala. "Guatemala fortalece la comunicación de riesgo en el contexto del virus Zika".

[https://www.paho.org/gut/index.php?option=com_content&view=article&id=914:guatemala-fortalece-comunicacion-de-riesgo-en-contexto-del-virus-zika&Itemid=526] Accessed 1 December 2020

[5] WHO Guatemala. "Pilar: Comunicación de riesgos y participación de la comunidad".

[https://www.paho.org/gut/index.php?option=com_content&view=article&id=1349:pila-comunicacion-de-riesgos-y-participacion-de-la-comunidad&Itemid=526] Accessed 1 December 2020

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the national public health system in Guatemala monitors and tracks the number of health care associated infections that take place in healthcare facilities.

The Department of Epidemiology has vigilance protocols for diseases, but not for infections that take place in hospitals. [1] Website for the Ministry of Public Health and Social Assistance (MSPAS) and the National Laboratory do not have additional

information about this. [2,3]

A study published in 2018 found that the value of collecting medical errors was not commonly discussed by Guatemalan hospital leadership or staff. [4] As part of the work for the WHO report "Monitoring Global Progress On Addressing Antimicrobial Resistance (AMR)", Guatemala confirmed in the WHO Global Database for Antimicrobial Resistance Country Self-Assessment for 2019 - 2020 that there is no national infection prevention and control programme in human health care. [5]

[1] Department of Epidemiology. "Protocolo de Vigilancia". [<http://epidemiologia.mspas.gob.gt/informacion/salas-situacionales/protocolo-de-vigilancia>] Accessed 1 December 2020

[2] Ministry of Public Health and Social Assistance. "Regulación, Vigilancia y Control de la Salud". [<http://www.mspas.gob.gt/index.php/institucional/unidades-departamentos/regulacion-vigilancia-y-control-de-la-salud>] Accessed 1 December 2020

[3] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 1 December 2020

[4] Rice, Henry E, et al. "Building a safety culture in global health: lessons from Guatemala". [<http://gh.bmj.com/content/3/2/e000630>] Accessed 1 December 2020

[5] World Health Organization. "Global Database for Antimicrobial Resistance Country Self-Assessment". [<https://amrcountryprogress.org/>] Accessed 1 December 2020

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that Guatemala has a national requirement for ethical review (e.g. from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. Clinical trials are supervised through the National Drug Control Program ("Programa Nacional de Farmacovigilancia"), which is under the Ministry of Public Health and Social Assistance. The website for the National Drug Control Program requires a clinical ethics approval form for applications for any clinical trial. Researchers are also required to provide regular updates and immediately notify of any serious adverse events. [1] No further details are available online. Websites for the MSPAS, National Laboratory, Department of Epidemiology and the National Council of Science and Technology do not have any additional information about this. [2,3,4,5]

[1] Ministry of Public Health and Social Assistance. "Programa Nacional de Farmacovigilancia". [<https://www.mspas.gob.gt/index.php/servicios/farmacovigilancia>] Accessed 1 December 2020

[2] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 1 December 2020

[3] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 1 December 2020

[4] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 1 December 2020

[5] Ministry of Public Health and Social Assistance. "Acerca del MSPAS".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 1 December 2020

4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Guatemala has an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. The National Drug Control Program ("Programa Nacional de Fármacovigilancia"), which is under the Ministry of Public Health and Social Assistance (MSPAS), does not publish information about this. [1] Websites for the MSPAS, National Laboratory, Department of Epidemiology and the National Council of Science and Technology do not have any additional information about this. [2,3,4,5]

[1] Ministry of Public Health and Social Assistance. "Programa Nacional de Fármacovigilancia".

[<https://www.mspas.gob.gt/index.php/servicios/farmacovigilancia>] Accessed 1 December 2020

[2] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 1 December 2020

[3] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 1 December 2020

[4] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 1 December 2020

[5] Ministry of Public Health and Social Assistance. "Acerca del MSPAS".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 1 December 2020

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is public evidence that Guatemala has a government agency responsible for approving new medical countermeasures for humans. The Department of Regulation and Control of Pharmaceutical and Related Products (Departamento de Regulación y Control de Productos Farmacéuticos y Afines), which is a department of the Ministry of Public Health and Social Assistance, is responsible for the registrations of pharmaceutical and related products. The department has registration forms available for pharmaceutical products, pesticides, natural medicines, and other health and cosmetic products. [1,2] Additionally, the Ministry of Public Health and Social Assistance runs the National Drug Control Program (NDCP, "Programa Nacional de Fármacovigilancia"), which approves new medications for humans. [3] According to the technical norms of the NDCP that were issued in 2009, the NDCP is responsible for clinical trials for any "substance, medication or device with application to humans." [4] The NDCP publishes information about the forms and procedures that are necessary for clinical trials and they do not disclose whether there are additional requirements for clinical trials for medical countermeasures. [3,4]

[1] Ministry of Public Health and Social Assistance. "Funciones del DRCPFA."

[<https://medicamentos.mspas.gob.gt/index.php/quienes-somos/funciones>]. Accessed 1 December 2020.

[2] Ministry of Public Health and Social Assistance. "Formularios Registros Sanitarios."

[<https://medicamentos.mspas.gob.gt/index.php/formularios/registro-e-inscripcion>]. Accessed 1 December 2020.

[3] Ministry of Public Health and Social Assistance. "Programa Nacional de Farmacovigilancia".

[<https://www.mspas.gob.gt/index.php/servicios/farmacovigilancia>] Accessed 1 December 2020

[4] Ministry of Public Health and Social Assistance. "Norma técnica 19-2009 Programa nacional de farmacovigilancia".

[https://www.mspas.gob.gt/images/files/farmacovigilancia/formularios/nt_19-2009.pdf] Accessed 1 December 2020

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Guatemala has an expedited process for approving medical countermeasures for human use during public health emergencies. Neither the Ministry of Public Health and Social Assistance's Department of Regulation and Control of Pharmaceutical and Related Products (Departamento de Regulacion y Control de Productos Farmaceuticos y Afines) nor the National Drug Control Program ("Programa Nacional de Farmacovigilancia"), has information about allowing an expedited process for approving medical countermeasures during public health emergencies. [1,2] Websites for the National Laboratory, Department of Epidemiology, the National Council of Science and Technology and the Ministry of Public Health and Social Assistance do not have any additional information about this. [3,4,5,6]

[1] Ministry of Public Health and Social Assistance. "Formularios Registros Sanitarios."

[<https://medicamentos.mspas.gob.gt/index.php/formularios/registro-e-inscripcion>]. Accessed 1 December 2020.

[2] Ministry of Public Health and Social Assistance. "Programa Nacional de Farmacovigilancia".

[<https://www.mspas.gob.gt/index.php/servicios/farmacovigilancia>] Accessed 1 December 2020

[3] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 1 December 2020

[4] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 1 December 2020

[5] Secretaria Nacional de Ciencia y Tecnologia. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 1 December 2020

[6] Ministry of Public Health and Social Assistance. "Acerca del MSPAS".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 1 December 2020

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

In Guatemala, there is no public evidence that pandemics are integrated into the national risk reduction strategy or that there is a standalone national disaster risk reduction strategy for pandemics. The National Coordinator for the Reduction of Disaster (CONRED) is responsible for risk reduction strategy and it does not address pandemics in the 2019 National Emergency Response Plan or anywhere else on its website. [1,2] Agencies under the Ministry of Public Health and Social Assistance have issued guidelines for the Zika virus and for monitoring mosquitoes for mosquito-borne diseases, but these are not integrated into a national risk reduction strategy. [3,4] The Ministry of Agriculture and Livestock runs Bovine Health Program (Programa de Sanidad Bovina), which aims to control brucellosis and tuberculosis in local bovine herds. The program is restricted to bovine herds, and not in an integrated national context. [5] Websites for the Ministry of Public Health and Social Assistance, the National Laboratory, the Ministry of Governance and CONRED do not have additional information about this. [6,7,8,9]

[1] National Coordinator for Disaster Reduction. "Plan Nacional de Respuesta (PNR)".

[<https://conred.gob.gt/documentos/planes/PNR.pdf>] Accessed 30 November 2020

[2] National Coordinator for Disaster Reduction. "Normas para la Reducción de Desastres".

[<https://conred.gob.gt/site/Normas-para-la-Reduccion-de-Desastres>] Accessed 1 December 2020

[3] Ministry of Public Health and Social Assistance. "Guía para la vigilancia y manejo de la infección del virus zika y sus complicaciones en Guatemala". [<https://www.mspas.gob.gt/images/files/zika/MedidasdeprevenciondelainfecciondelZika.pdf>] Accessed 1 December 2020

- [4] Direccion General de Regulacion. "Vigilancia y Control de la Salud, Manual operativo de vigilanciay control entomológico de aedes aegypti".
[[http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20\(VIRTUAL\).pdf](http://epidemiologia.mspas.gob.gt/files/Publicaciones%202016/Manuales/Manual%20%20operativo%20de%20Aedes%20aegypti%20(VIRTUAL).pdf)] Accessed 1 December 2020
- [5] Ministry of Agriculture and Livestock. "Program of Brucellosis and Bovine Tuberculosis".
[http://visar.maga.gob.gt/?page_id=919] Accessed 1 December 2020
- [6] Ministry of Public Health and Social Assistance. "Acerca de nosotros".
[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 1 December 2020
- [7] National Laboratory. Servicios. [<http://portal.lns.gob.gt/index.php/servicios>] Accessed 1 December 2020
- [8] Ministry of Governance. 2016. "Dependencias". [<http://mingob.gob.gt/dependencias/>] Accessed 1 December 2020
- [9] National Coordinator for the Reduction of Disaster. "Como coordina". [<https://conred.gob.gt/site/como-coordina>]
Accessed 1 December 2020

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 2

There is evidence that Guatemala has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to public health emergencies, and there is no evidence of gaps in implementation. Guatemala participates in the Technical Commission for Risk Management in Health (CTEGERS), which is part of the System of Central American Integration (SICA). SICA members include Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and Dominican Republic. CTEGERS exists to coordinate efforts among Central American public health authorities to strengthen their response to disaster and public health emergencies. It is supported by the regional health agenda put forth by the Council of Health Ministers of Central America. [1] Guatemala also participates in the SICA-organised Regional Mechanism for Mutual Assistance during Disasters (MecReg). SICA member countries are also members of MecReg. MecReg's goal is to "coordinate international humanitarian help and assistance within the framework of the System of Central American Integration". MecReg promotes the creation of fast response health teams that participating countries can deploy to assist other countries, the creation of a regional list of medical supplies required based on the type of emergency or disaster and the operation of specialised groups to evaluate health problems and needs in emergencies. [2] Additionally, since July 2017, MecReg member countries adopted expedited procedures to ship humanitarian aid across their borders. [3]

[1] COMISCA Executive Secretariat (Secretaria Ejecutiva COMISCA). "Technical Commission for Risk Management in Health" ("Comisión Técnica para la Gestión del Riesgo en Salud (CTEGERS)").

[https://www.sica.int/consulta/documentos_1488_0_1.html]. Accessed 1 December 2020

[2] System of Central American Integration (Sistema de la Integración Centroamericana). 2012. "Manual for the Coordination of International Help and Assistance for the System of Central American Integration, SICA" ("MANUAL PARA LA COORDINACIÓN DE LA AYUDA Y ASISTENCIA HUMANITARIA INTERNACIONAL DEL SISTEMA DE LA INTEGRACIÓN CENTROAMERICANA, SICA"). [<https://www.ifrc.org/docs/IDRL/Mec%20Reg%20SICA%202012.pdf>]. Accessed 1 December 2020

[3] ReliefWeb. 2017. "Central America Adopts New Procedure for the Transit of Humanitarian Relief Items".
[<https://reliefweb.int/report/nicaragua/central-america-adopts-new-procedure-transit-humanitarian-relief-items>]. Accessed
1 December 2020

5.2.1b

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

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

Current Year Score: 0

There is insufficient evidence that Guatemala has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to animal health emergencies. Although there is evidence that Guatemala participates in agreements to control the spread of animal diseases, there is no evidence of collaboration and support in the face of an animal health emergency. Guatemala is a member of the Regional International Organisation for Agricultural Health (OIRSA). Mexico, Nicaragua, Belize, El Salvador, Honduras, Costa Rica, Panama and the Dominican Republic are also members of OIRSA. [1] OIRSA's objective is to "support the efforts of the member States to achieve the development of their animal and plant health plans and the strengthening of their quarantine systems". One of OIRSA's specific activities is to "promote the adoption of common Animal Health policies" among member countries. [2] OIRSA implements the Regional Cross-Border Illness Program, which supports member countries in the eradication of threats to animal health. In addition, the program is developing regional Good Emergency Management Practice manuals and a cross-border protocol for sales of livestock. However, there is no mention of collaboration on response during an animal health emergency. [3] There is no additional information from the Ministry of Public Health and Social Assistance (MSPAS) and the Ministry of Agriculture and Livestock. [4,5]

[1] Regional International Organisation for Agricultural Health (Organismo Internacional Regional de Sanidad Agropecuaria). "Representaciones". [<https://www.oirsa.org/informacion.aspx?id=16>]. Accessed 1 December 2020

[2] Regional International Organisation for Agricultural Health (Organismo Internacional Regional de Sanidad Agropecuaria). "Objetivo del OIRSA". [<https://www.oirsa.org/informacion.aspx?id=8>]. Accessed 1 December 2020

[3] Regional International Organisation for Agricultural Health (Organismo Internacional Regional de Sanidad Agropecuaria). "Regional Program for Cross-border Illnesses" ("Programa Regional de Enfermedades Transfronterizas"). [<https://www.oirsa.org/noticia-detalle.aspx?id=7685>]. Accessed 1 December 2020

[4] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 1 December 2020

[5] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

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

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

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

Current Year Score: 0

2021

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

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

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

5.4.1a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

5.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that the government of Guatemala has allocated national funds to improve capacity to address epidemic threats within the past three years. Websites for the Ministry of Public Health and Social Assistance (MSPAS), Ministry of Agriculture and Livestock, and Ministry of Public Finance do not have information about this. [1,2,3] The government did allocate additional funds to the MSPAS in 2020 to fight COVID-19, but it is not clear whether sufficient additional funds will be available in 2021 for this effort. [4,5]

[1] Ministry of Public Health and Social Assistance. "Presupuesto".

[<https://www.mspas.gob.gt/index.php/component/jdownloads/category/33-numeral-1-presupuesto-de-ingresos-y-egresos?Itemid=-1>] Accessed 1 December 2020

[2] Ministry of Agriculture and Livestock. "Presupuesto". [<https://www.maga.gob.gt/num07/>] Accessed 1 December 2020

[3] Ministry of Public Finances. "Presupuesto abierto". [<https://presupuestoabierto.minfin.gob.gt/>] Accessed 1 December 2020.

[4] Infobae. "Guatemala aumenta USD 1.410 millones el presupuesto nacional para coronavirus".

[<https://www.infobae.com/america/agencias/2020/04/03/guatemala-aumenta-usd-1410-millones-el-presupuesto-nacional-para-coronavirus/>] Accessed 1 December 2020.

[5] Prensa Libre. 2020. "Salud aún no define cuál será el presupuesto para atención del covid-19".

[<https://www.prensalibre.com/guatemala/comunitario/salud-aun-no-define-cual-sera-el-presupuesto-para-atencion-del-covid-19/>] Accessed 1 December 2020

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence of a publicly identified special emergency public financing mechanism that Guatemala can access in the face of public emergencies, including those classified as public health emergencies. The 1996 Law and Regulation of the National Coordinator for Disaster Reduction (CONRED) established the National Fund for the Reduction of Disasters, an account that received finances from both the government and international donors. According to article 112 of the 1996 law, the fund can be used both for disaster risk projects as well as for disaster response and recovery. [1] Under the section on "Financial Resources" of the National Response Plan for emergencies, the document also states that "according to Article 36 of the CONRED law, the necessary emergency funds will be complemented with the use of the national fund for the reduction of disasters and national and international donations and finances." The funds can be used for any type of public emergency, and there is no specific allocation (or lack of allocation) for public health emergencies. [2] However, there is no public evidence that Guatemala can access other international emergency funds. As a member of the Pan American Health

Organization (PAHO), Guatemala can access the strategic fund to acquire medicines and other health supplies, but this is not an emergency fund. [3] Guatemala is not an IDA country so it is not eligible for funding from the World Bank. [4,5]

[1] Government of Guatemala. 1996. "Ley y reglamento Coordinadora Nacional para la Reducción de Desastres".

[<http://conred.gob.gt/site/Base-Legal>] Accessed 1 December 2020

[2] CONRED. "Plan Nacional de Respuesta". [<https://conred.gob.gt/site/Plan-Nacional-de-Respuesta>] Accessed 1 December 2020.

[3] PAHO. "Fondo Estratégico de la OPS".

[http://www.paho.org/hq/index.php?option=com_content&view=article&id=12163%3Aapaho-strategic-fund&catid=8775%3Aabout&Itemid=42005&lang=es] Accessed 1 December 2020

[4] World Bank Group. "International Development Association - Borrowing countries".

[<http://ida.worldbank.org/about/borrowing-countries>] Accessed 1 December 2020

[5] World Bank Group. "Pandemic Financing Facility". [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>] Accessed 1 December 2020

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

5.5.4a

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

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

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

Current Year Score: 0

There is insufficient evidence that senior leaders (president or ministers) in Guatemala have made a public commitment either to support other countries to improve capacity to address epidemic threats or improve its own domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity in the past three years. Websites for the Ministry of Public Health and Social Assistance, United Nations, World Health Organization and Inter-American Development Bank do not share relevant information. [1,2,3,4] Prensa Libre, one of the largest newspapers in the country, does not have information about this. [5] The websites for the Ministry of Agriculture and Livestock, National Laboratory and Department of Epidemiology do not have additional information. [6,7,8] The National Coordination for Disaster Reduction of Guatemala (CONRED), which is the agency responsible for disaster risk management, does not have information about this. [9]

[1] MSPAS. "Noticias". [<https://www.mspas.gob.gt/index.php/noticias/noticias-mspas>] Accessed 1 December 2020

[2] United Nations. "Guatemala". [<https://news.un.org/en/tags/Guatemala>] Accessed 1 December 2020

[3] Pan American Health Organization. "Guatemala". [<https://www.paho.org/gut/>] Accessed 1 December 2020

[4] Inter-American Development Bank. "Guatemala". [<https://www.iadb.org/en/countries/guatemala/overview>] Accessed 1 December 2020

[5] Prensa Libre. "Inicio". [<https://www.prensalibre.com/>] Accessed 1 December 2020

[6] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[7] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 1 December 2020

[8] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 1

December 2020

[9] National Coordination for Disaster Reduction of Guatemala. "Inicio". [<http://conred.gob.gt/site/index.php>] Accessed 1 December 2020

5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

Current Year Score: 1

There is evidence that Guatemala 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 Guatemala has invested donor finances to improve domestic capacity to address epidemic threats. The tracker notes that Guatemala has received funding from multiple donors to enhance its capacity on global security preparedness, including from the World Health Organisation to enhance organizational capacity for timely and accurate provision of internal and external communications in accordance with WHO's programmatic priorities, including during disease outbreaks, public health emergencies and humanitarian crises. [1] However, no further information is available on funds invested from the national budget or provided in support of other countries.

The websites for the Ministry of Public Health and Social Assistance, United Nations, World Health Organization and Inter-American Development Bank do not share relevant information. [2,3,4,5] Prensa Libre, one of the largest newspapers in the country, does not have information about this. [6] The websites for the Ministry of Agriculture and Livestock, National Laboratory and Department of Epidemiology do not have additional information. [7,8,9] The National Coordination for Disaster Reduction of Guatemala (CONRED), which is the agency responsible for disaster risk management, does not have information about this. [10]

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

[2] MSPAS. "Noticias". [<https://www.mspas.gob.gt/index.php/noticias/noticias-mspas>] Accessed 1 December 2020

[3] United Nations. "Guatemala". [<https://news.un.org/en/tags/Guatemala>] Accessed 1 December 2020

[4] Pan American Health Organization. "Guatemala". [<https://www.paho.org/gut/>] Accessed 1 December 2020

[5] Inter-American Development Bank. "Guatemala". [<https://www.iadb.org/en/countries/guatemala/overview>] Accessed 1 December 2020

[6] Prensa Libre. "Inicio". [<https://www.prensalibre.com/>] Accessed 21 May 2019

[7] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[8] National Laboratory. "Inicio". [<http://portal.lns.gob.gt/>] Accessed 1 December 2020

[9] Department of Epidemiology. "Vision mission". [<http://epidemiologia.mspas.gob.gt/conozcanos/mision-vision>] Accessed 1 December 2020

[10] National Coordination for Disaster Reduction of Guatemala. "Inicio". [<http://conred.gob.gt/site/index.php>] Accessed 1 December 2020

5.5.4c

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Economist Impact analyst qualitative assessment based on official national sources, which vary by country

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

5.6.1 Commitment to sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) in both emergency and nonemergency research

5.6.1a

Is there a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza?

Yes = 1 , No = 0

Current Year Score: 0

Guatemala does not have a publicly available plan or policy for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) with international organizations and/or other countries that goes beyond influenza. The Ministry of Public Health and Social Assistance (MSPAS) cooperates closely with the US Centers for Disease Control and Prevention (CDC). [1,2] However, there are no publicly available documents about sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens (biological materials) from the MSPAS or the CDC. [1,3] Websites for the Ministry of Agriculture and Livestock and for the National Council of Science and Technology do not have any additional information about this. [4,5]

[1] CDC. "Global Disease Detection Program: Guatemala and Central America".

[https://www.cdc.gov/globalhealth/countries/central-america/index.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fglobalhealth%2Fcountries%2Fguatemala%2Fdefault.htm] Accessed 1 December 2020

[2] PAHO. "Lanzan centro de control de enfermedades en Guatemala".

[https://www.paho.org/gut/index.php?option=com_content&view=article&id=751:lanzan-centro-de-control-de-enfermedades-en-guatemala&Itemid=441] Accessed 1 December 2020

[3] Ministry of Public Health and Social Assistance. "Acerca de nosotros".

[<https://www.mspas.gob.gt/index.php/institucional/acerca-del-mspas>] Accessed 1 December 2020

[4] Ministry of Agriculture and Livestock. "Políticas". [<https://www.maga.gob.gt/politicas/>] Accessed 28 November 2020

[5] Secretaria Nacional de Ciencia y Tecnología. "Portal". [<https://www.senacyt.gob.gt/portal/>] Accessed 1 December 2020

5.6.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Guatemala has declined to share samples in accordance with the PIP framework in the past two years. The World Health Organisation has not reported any non-compliance in the past two year by Guatemala, and a search for media articles on this did not produce any results. The Influenza Laboratory Surveillance Information shows data for Guatemala through the present. [1,2] There is no evidence from the local WHO/PAHO office. [3]

[1] World Health Organization (WHO). Pandemic Influenza Preparedness (PIP) Framework.

[<https://www.who.int/influenza/pip/en/>] Accessed 1 December 2020

[2] WHO. "Influenza Laboratory Surveillance Information".

[<http://apps.who.int/flumart/Default?ReportNo=1&CountryCode=GT>] Accessed 1 December 2020

[3] Pan American Health Organization. "Guatemala". [<https://www.paho.org/gut/>] Accessed 1 December 2020

5.6.1c

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Guatemala has declined to share pandemic pathogen samples during an outbreak including for Covid-19 in the past two years via the WHO or news articles. [1,2] The Ministry of Public Health and Social Assistance (MSPAS) shares samples with the WHO in accordance with IHS 2005 principles. [3,4]

[1] World Health Organization (WHO). Pandemic Influenza Preparedness (PIP) Framework.

[<https://www.who.int/influenza/pip/en/>]. Accessed 1 December 2020

[2] Prensa Libre, Inicio, [<http://www.prensalibre.com/>] Accessed 30 November 2020

[3] Ministry of Public Health and Social Assistance. "Nuevo Coronavirus COVID-19". [<https://www.mspas.gob.gt/covid-19/coronavirus-2019-ncov.html>] Accessed 28 November 2020

[4] Ministry of Public Health and Social Assistance. "Categoría: Documentos técnicos"

[<https://www.mspas.gob.gt/index.php/component/jdownloads/category/483-documentos-tecnicos?Itemid=-1>] Accessed 10 December 2020

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

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: 2

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: 25

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: 1

2020

Economist Intelligence

6.1.2 Orderly transfers of power

6.1.2a

How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?

Very clear, established and accepted = 4, Clear, established and accepted = 3, One of the three criteria (clear, established, accepted) is missing = 2, Two of the three criteria (clear, established, accepted) are missing = 1, Not clear, not established, not accepted = 0

Current Year Score: 2

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

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

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

Current Year Score: 3

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: 0

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: 3

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 81.3

2014

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: 0.51

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: 2.6

2014

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 estimated share of informal employment in Guatemala was about 69.8% in 2017 (latest available data), according to a national survey by the National Institute of Statistics. [1]

[1] Prensa Libre. 2017. "Ocho maneras de ganarse la vida en la informalidad". [<https://www.prensalibre.com/ciudades/ocho-formas-de-ganarse-la-vida-desde-la-informalidad/>] Accessed 1 December 2020

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 1

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 0

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

Current Year Score: 1

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.48

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: 1

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

What is the risk that air transport will prove inadequate to meet needs?

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

Current Year Score: 3

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 1

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 51.44

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: -2.51

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

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

Current Year Score: 0

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 74.06

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: 496.5

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 4.93

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 14.78

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 21.2

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: 94.19

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 65.06

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: 173.91

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