

Colombia

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

CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH POTENTIAL FOR INTERNATIONAL CONCERN	4
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	6
1.3 Biosecurity	11
1.4 Biosafety	18
1.5 Dual-use research and culture of responsible science	20
1.6 Immunization	24
CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN	25
2.1 Laboratory systems strength and quality	25
2.2 Laboratory supply chains	27
2.3 Real-time surveillance and reporting	29
2.4 Surveillance data accessibility and transparency	31
2.5 Case-based investigation	36
2.6 Epidemiology workforce	39
CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC	41
3.1 Emergency preparedness and response planning	41
3.2 Exercising response plans	45
3.3 Emergency response operation	47
3.4 Linking public health and security authorities	48
3.5 Risk communications	49
3.6 Access to communications infrastructure	52

3.7 Trade and travel restrictions	53
-----------------------------------	----

CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 55

4.1 Health capacity in clinics, hospitals, and community care centers	55
---	----

4.2 Supply chain for health system and healthcare workers	58
---	----

4.3 Medical countermeasures and personnel deployment	62
--	----

4.4 Healthcare access	63
-----------------------	----

4.5 Communications with healthcare workers during a public health emergency	64
---	----

4.6 Infection control practices and availability of equipment	66
---	----

4.7 Capacity to test and approve new medical countermeasures	66
--	----

CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 68

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	68
---	----

5.2 Cross-border agreements on public health and animal health emergency response	69
---	----

5.3 International commitments	70
-------------------------------	----

5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	72
--	----

5.5 Financing	73
---------------	----

5.6 Commitment to sharing of genetic and biological data and specimens	76
--	----

CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL THREATS 78

6.1 Political and security risk	78
---------------------------------	----

6.2 Socio-economic resilience	82
-------------------------------	----

6.3 Infrastructure adequacy	84
-----------------------------	----

6.4 Environmental risks	84
-------------------------	----

6.5 Public health vulnerabilities	85
-----------------------------------	----

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: 2

There is an AMR plan in Colombia addressing surveillance, detection and reporting. In June 2018, Colombia's Ministry of Health and Welfare published the National Plan for Antimicrobial Resistance (AMR) Response. The plan outlines the current situation in the country regarding AMR, details the strategic plan for response, and provides operational detail on steps for implementation. The document lists multiple antimicrobial resistance surveillance programs implemented since 1987, led by the National Institute of Health. For instance, since 1997 a laboratory-based surveillance system was created for acute diarrheal disease (ADD). It aimed to determine the circulation of serotypes and the resistance to antimicrobials of bacterial agents such as *Salmonella* spp., *Shigella* spp. and *Vibrio cholera*. Further, in 2012 a surveillance program for Healthcare-Associated Infections was established in order to identify the mechanisms of antimicrobial resistance circulating in the country. The program has also enabled a reporting mechanism using WHONET software. Furthermore, within Strategic Line 2 (on research and surveillance), the plan outlines specific actions to be developed, such as multi-sectoral collaboration for the strengthening of surveillance systems, reporting mechanisms and laboratory capacity. [1]

[1] Ministry of Health and Welfare. 2018. "Plan Nacional de Respuesta a la Resistencia a los Antimicrobianos". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/MET/plan-respuesta-resistencia-antimicrobianos.pdf>]. Accessed August 2020.

1.1.1b

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

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

Current Year Score: 2

There is evidence of a national laboratory system testing for all priority AMR pathogens. According to section 2.2 of the National Plan on Antimicrobial Resistance Response, Colombia's National Health Institute tests for drug resistant strains of *E. coli*, *S. aureus*, *S. pneumoniae*, *Salmonella* spp., *Shigella* spp, and *N. gonorrhoeae*. The National Plan also states, in section 3, that there is a public health surveillance protocol for tuberculosis and for resistant strains. [1] Indeed, a recent report from SIVIGILA (Sistema de Vigilancia en Salud Pública, the country's National Public Health Surveillance System), evidences tracking of cases of resistant tuberculosis across all municipalities of the country [2]. Lastly, a 2019 report of laboratory surveillance results by of antimicrobial resistance in healthcare-associated infections by the National Institute of Health, evidences surveillance of *K. pneumoniae*, among others. The report relies on results of microbial isolation provided by 25 district and regional public health laboratories, which are then tested for antimicrobial resistance by the National Health Institute (INS in

Spanish). The methodology is not classed as sentinel surveillance [3] The INS only reports sentinel surveillance of a number of events, such as fluorosis, flu-like illnesses and acute respiratory infection. [4]

[1] Ministry of Health and Welfare. 2018. "Plan Nacional de Respuesta a la Resistencia a los Antimicrobianos".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/MET/plan-respuesta-resistencia-antimicrobianos.pdf>]. Accessed August 2020.

[2] National Institute of Health. "Vigilancia Rutinaria 2020". [http://portalsivigila.ins.gov.co/sivigila/documentos/Docs_1.php]. Accessed August 2020.

[3] National Institute of Health. 2019. "Informe de resultados de la vigilancia por Laboratorio de resistencia antimicrobiana en Infecciones asociadas a la atención en salud (IAAS) 2018". [<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Informe-vigilancia-por-laboratorio-resistencia-antimicrobiana-y-whonet-IAAS-2018.pdf>] Accessed August 2020.

[4] National Institute of Health. 2019. "Lineamientos Nacionales 2020".

[<https://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/Lineamientos%202020.pdf>]. Accessed August 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Colombia conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. Such activities are not documented in the country's National Plan for Antimicrobial Resistance (AMR) Response [1]. There is no evidence of such activities from the Ministry of Environment and Sustainable Development. [2] Two public agencies with a remit in research of the agricultural sector (AGROSAVIA and ICA) evidence AMR programs, but only with a focus on testing food and animals. [3, 4].

[1] Ministry of Health and Welfare. 2018. "Plan Nacional de Respuesta a la Resistencia a los Antimicrobianos".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/MET/plan-respuesta-resistencia-antimicrobianos.pdf>]. Accessed August 2020.

[2] Ministry of Environment and Sustainable Development. 2020. [<http://www.minambiente.gov.co>]. Accessed August 2020.

[3] AGROSAVIA. 2020. "Investigación y Vigilancia Integrada de la Resistencia Antimicrobiana".

[<https://www.agrosavia.co/nosotros/grupos-de-investigaci%C3%B3n/investigaci%C3%B3n-y-vigilancia-integrada-de-la-resistencia-antimicrobiana>]. Accessed August 2020.

[4] ICA. 2020. "El ICA y organismos internacionales, unidos por el uso responsable de los antibióticos".

[<https://www.ica.gov.co/noticias/el-ica-y-organismos-internacionales-unidos-por-el>]. Accessed August 2020.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 1

There is regulation in place requiring prescriptions for antimicrobials in humans, but there is also evidence of lack of enforcement. Decree 2200 of 2005, "Regulating the pharmaceutical service" mandates dispensers to demand a prescription for those drugs labelled "Sale with prescription only", such as antimicrobials, and to verify that a prescription has been issued by a competent professional. However, the National Plan for Antimicrobial Resistance (AMR) Response evidences that enforcement is low, citing a study finding that it was possible to obtain antibiotics without a prescription in 80% of pharmacies sampled in Bogota. [2]

[1] Ministry of Social Protection. 2005. "Decreto 2200 de 2005".

[https://www.icbf.gov.co/cargues/avance/docs/decreto_2200_2005.htm]. Accessed August 2020.

[2] Ministry of Health and Welfare. 2018. "Plan Nacional de Respuesta a la Resistencia a los Antimicrobianos".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/MET/plan-respuesta-resistencia-antimicrobianos.pdf>]. Accessed August 2020.

1.1.2b

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

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

Current Year Score: 1

Colombia has laws in place requiring prescriptions for antibiotics for animals, but there is evidence of low enforcement. According to Article 4 of Resolution 1023 of 1997 by the Colombian Agricultural Institute, written prescriptions are required for the sale of antibiotics, analgesics, narcotics, barbiturates, and tranquilizers among others, for animals [1]. The National Plan for Antimicrobial Resistance (AMR) Response mentions that there is little information on access to antibiotics for animals, but there is evidence of low enforcement of restrictions, due to lack of precision in administration and outdated registration of medicines. [2]

[1] Colombian Agricultural Institute. 1997. "Por la cual se dictan disposiciones sobre la distribución, comercialización y venta de insumos agropecuarios, material genético animal y semillas para siembra". [<http://fenavi.org/wp-content/uploads/2018/04/RESOLUCION-1023-de-1997-1.pdf>]. Accessed August 2020.

[2] Ministry of Health and Welfare. 2018. "Plan Nacional de Respuesta a la Resistencia a los Antimicrobianos".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/MET/plan-respuesta-resistencia-antimicrobianos.pdf>]. Accessed August 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: 1

There is a national strategy for management of zoonosis. In 2017, the Ministry of Health and Welfare published the Strategy for Comprehensive Management of Zoonosis (EGI-ZOONOSIS) for the period 2015-2021. The strategy focuses on risks to human health and addresses specifically Rabies, Leptospirosis, Equine Encephalitis, Toxoplasmosis and Brucellosis. The strategy includes sections: regulatory framework, assessment of the challenges in Colombia, identification of stakeholders,

objectives of the strategy, definition of the comprehensive strategy and its components, and lastly, a detailed implementation plan with objectives and activities. The aim of the strategy is stated as: "reduction of morbidity and mortality, disability and socio-economic burden of zoonotic diseases affecting the population". [1]

[1] Ministry of Health and Welfare. 2017. "Estrategia de Gestión Integral de Zoonosis - EGI-ZOONOSIS".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/egi-zoonosis-documento-ultimo.pdf>]. Accessed August 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that there are strategies addressing risk identification and actions for reduction of zoonotic disease spillover in Colombia. The Strategy for Comprehensive Management of Zoonosis (EGI-ZOONOSIS) for the period 2015-2021 evidences a process for identification and prioritization of the most challenging diseases in the territory (Rabies, Leptospirosis, Equine Encephalitis, Toxoplasmosis and Brucellosis), which preceded the creation of the strategy. The document then offers an overview of the impact of each disease in the country and actions already in place. Further, the implementation plan includes activities in health promotion (e.g. identification of risk factors given social practices, education and communication, issuing of good practices for animal handling) and in disease prevention (e.g. health protocols for medical assistance and immunization). [1] However, the document does not include at least one type of specific risk/reduction plan. A National Report on Zoonosis for 2018 offers further detail on activities in this area. The document describes the work of sub-national governments and authorities across the health and agriculture sectors. The country has conducted activities in health promotion, risk management, public health surveillance, and immunisation and control, addressing the specific needs in the territory. For example, INVIMA (National Food and Drug Surveillance Institute) is in charge of the inspection of slaughterhouses for diseases such as Brucellosis, Tuberculosis and Bovine Spongiform Encephalopathy. The report also evidences education campaigns on zoonosis for the population across most regions of the country. [2] However, this document as well does not include at least one type of specific risk/reduction plan. No further evidence was found via the Ministry of Health and Ministry of Agriculture. [3, 4]

[1] Ministry of Health and Welfare. 2017. "Estrategia de Gestión Integral de Zoonosis - EGI-ZOONOSIS".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/egi-zoonosis-documento-ultimo.pdf>]. Accessed August 2020.

[2] Ministry of Health and Welfare. 2019. "Informe Nacional de Zoonosis 2018".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SA/informe-nacional-zoonosis-2018.pdf>].

Accessed August 2020. [1] Ministry of Health and Welfare. 2020. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed April 2021.

[2] National Institute of Health. 2020. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed April 2021.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 1

There is a national strategy which accounts for the surveillance and control of multiple zoonotic pathogens. In 2017, the Ministry of Health and Welfare published the Strategy for Comprehensive Management of Zoonosis (EGI-ZOONOSIS) for the period 2015-2021. The strategy focuses on risks to human health and addresses specifically: Rabies, Leptospirosis, Equine Encephalitis, Toxoplasmosis and Brucellosis. The implementation plan for the strategy includes detailed components on both surveillance and control (through health promotion, prevention and patient services) across the five priority diseases. The strategy provides guidance for the operation of multiple stakeholders involved, such as sub-national health authorities and health and agriculture institutions, each with different responsibilities. [1]

[1] Ministry of Health and Welfare. 2017. "Estrategia de Gestión Integral de Zoonosis - EGI-ZOONOSIS". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/egi-zoonosis-documento-ultimo.pdf>]. Accessed August 2020.

1.2.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a permanent unit dedicated to zoonotic disease that functions across ministries. There is, however, a non-permanent entity, the National Council for Zoonosis, established by Decree 2257 of 1986. The Council should be formed with representatives of the Ministry of Health and the Ministry of Agriculture and should oversee surveillance and control. The Decree also mandates the creation of similar councils at the sub-national level. [1] The councils should meet at least four times a year. The National Report on Zoonosis for 2018 evidences that meetings of the national and sub-national councils took place (with different frequency across regions). These constitute non-permanent entities as there is only evidence of periodic convening. Also, as ad-hoc entities formed with delegates of different government agencies, they also lack dedicated staff. [1, 2]

[1] Ministry of Social Protection. "Decreto 2257 de 1986". [<https://www.ins.gov.co/Normatividad/Decretos/DECRETO%202257%20DE%201986.pdf>]. Accessed August 2020.
[2] Ministry of Health and Welfare. 2019. "Informe Nacional de Zoonosis 2018". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SA/informe-nacional-zoonosis-2018.pdf>]. Accessed August 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is a national mechanism for owners of livestock to report on diseases to a central government agency. Livestock owners must report on 8 official diseases of public health concern (Vesicular stomatitis, Bovine Brucellosis, Tuberculosis, Wild rabies, Equine encephalitis, Classical swine fever (CSF), Newcastle disease, Avian salmonellosis), plus on FMD, Bovine

Spongiform Encephalopathy (BSE) and Avian Influenza (AI), to the National Information System for Official Control Diseases (SINECO), through officials at the Colombian Agricultural Institute (ICA). The initial suspicion of a disease must first be assessed by ICA officials who then enter the data into SINECO. SINECO is only accessible via a username and password to official ICA veterinarians [1]. The national strategy for zoonosis (2017) mentions SINECO as one of the components of the surveillance plan. [2]

[1] OIE. 2016. "Informe de Análisis de Brechas PVS"
[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/OIE_PVS_Gap_Analysis_Colombia_Report.pdf]. Accessed August 2020.

[2] Ministry of Health and Welfare. 2017. "Estrategia de Gestión Integral de Zoonosis - EGI-ZOONOSIS".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/egi-zoonosis-documento-ultimo.pdf>]. Accessed August 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of regulations that specifically safeguard the confidentiality of information generated through surveillance of animals. The Colombian Agricultural Institute (ICA), the authority responsible for the National Information System for Official Control Diseases (SINECO), does have a policy of privacy and personal data protection, which among others requires authorisation for the use of personal data and guarantees the safe handling of any personal information. This applies to any data received by ICA from any stakeholder. [1] However, a manual for registration into SINECO shows there is a requirement of personal details of the owner of the land where a disease was found. The input of the data is made by a ICA-approved veterinarian registered in the system. [2] There is no further evidence in this regard from ICA allowing to confirm to what extent confidentiality is enforced in this procedure. [3]

[1] Colombian Agricultural Institute. "Política de Privacidad y Protección de Datos Personales".
[<https://www.ica.gov.co/movil/politica-de-privacidad-y-proteccion-de-datos-perso.aspx>]. Accessed September 2020.

[2] Colombian Agricultural Institute. "Instructivo SINECO".
[<https://portal.ica.gov.co:447/DocManagerSwift/User/HTMLServe.ashx?E=7D5CD46DD5FED04EBAC6FACDE4B92D61&PE=09C57DA5BE145FF5637DEA2CFC93475C&S=40&P=False&R=2052532785>]. Accessed September 2020.

[3] Colombian Agricultural Institute. 2020. [<https://www.ica.gov.co/>]. Accessed August 2020.

1.2.2c

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

Yes = 1 , No = 0

Current Year Score: 1

The country conducts surveillance of zoonotic disease in wildlife. The Colombian Agricultural Institute (ICA, in Spanish), leads a National Program for the Prevention and Control of Rabies of Wild Origin, which involves actions such as monitoring colonies of bats across the country. In the year 2018 there were 202 controls and 146 samples were taken. Furthermore, additional sampling was conducted by numerous regional health divisions, which submitted samples to ICA and the National

Institute of Health (INS) for testing. [1]

[1] Ministry of Health and Welfare. 2019. "Informe Nacional de Zoonosis 2018".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SA/informe-nacional-zoonosis-2018.pdf>].
Accessed August 2020.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

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

Yes = 1, No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 37.0

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 37.23

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1, No = 0

Current Year Score: 1

The Strategy for Comprehensive Management of Zoonosis (EGI-ZOONOSIS) for the period 2015-2021 recognises the need to work collaboratively with the private sector. The governance pillar of the strategy includes proposed activities in fostering multi-sector work, including the private sector, for the achievement of the objectives in control of zoonoses. Furthermore, in the design of the Strategic Plan, there was participation of multiple private-sector actors, such as universities and the Colombian association of veterinarians and zootechnicians. [1] Furthermore, there is evidence of formal collaboration between the Colombian Agricultural Institute (ICA) and important industry associations. There is one agreement between ICA and the Colombian Federation of Cattle Ranchers (Fedegan) on the control of Bovine Tuberculosis. [2] The National Federation of Poultry Farmers (FENAVI) have also established an alliance with ICA for the control of Newcastle Disease. [3]

[1] Ministry of Health and Welfare. 2017. "Estrategia de Gestión Integral de Zoonosis - EGI-ZOONOSIS".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/egi-zoonosis-documento-ultimo.pdf>]. Accessed September 2020.

[2] FEDEGAN. 2012. "Tuberculosis bovina". [<https://www.fedegan.org.co/programas/tuberculosis-bovina>]. Accessed September 2020.

[3] ICA. 2015. "El ICA y FENAVI forman auditores en bioseguridad aviar". [<https://www.ica.gov.co/noticias/pecuaria/2015/el-ica-y-fenavi-forman-auditores-en-bioseguridad-a>]. Accessed September 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: 1

There is evidence of a record of facilities in which especially dangerous pathogens and toxins are stored or processed. Resolution 561 of March 2019 of the Ministry of Health and Welfare [1] mandates the creation of the National Network of Laboratories (RELAB), for the integration of an information system among public and private laboratories handling tests of events of public health interest. [2] Based on guidelines from the Ministry of Health (produced in May and July 2019), the aims of this initiative include: improving the knowledge of testing capacity at the national level, enabling authorisation of providers to contract with health authorities, improving quality standards, and understanding of the handling of strains requiring special control in laboratories (in line with the biological weapons convention). [3] For registration with RELAB, laboratories need to submit information on: testing methods, biocontainment and details of handling of strains requiring special control (such as viruses, bacteria, toxins and fungi). Laboratories then will undergo a verification process by public health authorities. [2, 3] A recent biosecurity guidelines document for the network requires laboratories handling biological agents or toxins to maintain a detailed and safe inventory. [4] As of June 20 2020, there were 69 laboratories registered in RELAB. [5]

[1] Ministry of Health and Welfare. 2019. "Resolución 561 de 2019".

[https://www.minsalud.gov.co/Normatividad_Nuevo/Resolución%20No.%20561%20de%202019.pdf]. Accessed September 2020.

- [2] Ministry of Health and Welfare. 2019. "Incorporación a la Red Nacional de Laboratorios de Colombia". [<https://www.ins.gov.co/Direcciones/RedesSaludPublica/GestiondeCalidadLaboratorios/TalleredesFortalecimiento/Presentación%20RNL%20y%20RELAB.pdf>]. Accessed September 2020.
- [3] Ministry of Health and Welfare. 2019. "Abecé - Registro de laboratorios - RELAB". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/abece-relab.pdf>]. Accessed September 2020.
- [4] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.
- [5] Ministry of Health and Welfare. 2020. "RELAB, una red que permite identificar la capacidad de respuesta de los laboratorios". [<https://www.minsalud.gov.co/Paginas/RELAB-una-red-que-permite-identificar-la-capacidad-de-respuesta-de-los-laboratorios.aspx>]. Accessed September 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: 1

The country has biosecurity/biosafety guidelines for its laboratory network and enforceable regulations on biological research. In August 2020, the Ministry of Health and Welfare issued the document "General Biosecurity and Biocontainment Guidelines for laboratories of the National Network of Laboratories" with the aim of guiding the laboratory network in the establishment of biosecurity and biocontainment processes and procedures, and in risk management, with a focus on those laboratories performing procedures that include isolated pathogens or samples containing them. The definition of "bioseguridad" in the guidelines pertain both to elements of biosafety (protection of workers) and biosecurity (preventing external misuse, such as biocustody). The biosecurity/biosafety components addressed are: risk identification procedures, risk assessment and management, risk prevention and monitoring, biocustody (including security of systems and data), safe sample handling and transportation, waste management, biosecurity during pandemic events, certification. [1] Enforcement of these guidelines is supported by a number of regulations in the matter. Resolution 8430 of 1993 of the Ministry of Health in particular addresses biosecurity/biosafety in institutions conducting research with biological material or pathogens and requires the compliance with the standards or norms produced by the Ministry of Health with regards to: facilities and equipment, procedural documentation, staff training, surveillance, security monitoring, as well as documentaton of risks and containment capacity, among others. According to Article 71 of resolution 8430, it is mandatory for principal researchers to report to the institution's own "Biosecurity Commission" on difficulties or failures in the implementation of the safety procedures, to correct work errors that could cause the release of infectious material and to ensure the integrity of physical containment measures. [2]

[1] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.

[2] Ministry of Health. "Resolución 8430 de 1993". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

1.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Colombia has an agency responsible for enforcing biosecurity legislations. The Ministry of Health is the agency in charge of issuing policies and technical/administrative norms for mandatory compliance by all agents in the healthcare system and enforcement is delegated to sub-national health authorities. [1] Decree 2323 of 2006 regulating the national laboratory network, and aspects of biosecurity, states that health authorities can enforce rules and impose penalties due to lack of compliance. [2] Further, Decree 2240 of 1996 defines regional, municipal or local health authorities as those with the capacity for enforcement. [3] Thus, sub-national health secretaries (existing in departments and in the capital), have a role in enforcement of norms and legislation issued nationally for the health sector. [4] However, there is no further evidence of the same from the Ministry of Health and Social Protection, the Ministry of Agriculture, and the Ministry of National Defense. [5, 6, 7]

[1] Ministry of Health. "Resolución 8430 de 1993".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

[2] Ministry of Social Protection. "Decreto 2323 de 2006".

[https://www.icbf.gov.co/cargues/avance/docs/decreto_2323_2006.htm]. Accessed September 2020.

[3] Ministry of Health. "Decreto 2240 de 1996".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Decreto-2240-de-1996.pdf>]. Accessed September 2020.

[4] Secretary of Health Bogota. 2020. "Plataforma Estratégica".

[<http://www.saludcapital.gov.co/Paginas2/ObjetivosEstrategicos.aspx>]. Accessed September 2020.

[5] Ministry of Health and Social Protection. "Home". [<https://www.minsalud.gov.co/>] Accessed June 14, 2021.

[6] Ministry of Agriculture. "Home". [<https://www.minagricultura.gov.co/English/Paginas/default.aspx>] Accessed June 14, 2021.

[7] Ministry of National Defense. "Inicio" [<https://www.mindefensa.gov.co/irj/portal/Mindefensa>] Accessed June 14, 2021.

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

Through the creation of the National Network of Laboratories (RELAB) in 2019 there has been some integration of information from public and private laboratories but there is no evidence of a process of consolidation in the inventory of special pathogens and toxins. For registration with RELAB, laboratories need to submit information on: testing methods, biocontainment and details of handling of strains requiring special control (such as viruses, bacteria, toxins and fungi). Laboratories then will undergo a verification process by public health authorities. [1, 2] A recent biosecurity guidelines document for the network requires laboratories handling biological agents or toxins to maintain a detailed and safe inventory. [3] As of June 20 2020, there were 69 laboratories registered in RELAB. [4] There is no evidence from the relevant authority (Ministry of Health) that there has been a process of consolidation in the inventories of pathogens and toxins among the network. [5] No further information is available from the National Institute of Health, the Ministry of Agriculture,

the Ministry of Defense, or the VERTIC database. [6, 7, 8, 9]. Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [10]

- [1] Ministry of Health and Welfare. 2019. "Incorporación a la Red Nacional de Laboratorios de Colombia". [<https://www.ins.gov.co/Direcciones/RedesSaludPublica/GestiondeCalidadLaboratorios/TalleresdeFortalecimiento/Presentación%20RNL%20y%20RELAB.pdf>]. Accessed September 2020.
- [2] Ministry of Health and Welfare. 2019. "Abecé - Registro de laboratorios - RELAB". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/abece-relab.pdf>]. Accessed September 2020.
- [3] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.
- [4] Ministry of Health and Welfare. 2020. "RELAB, una red que permite identificar la capacidad de respuesta de los laboratorios". [<https://www.minsalud.gov.co/Paginas/RELAB-una-red-que-permite-identificar-la-capacidad-de-respuesta-de-los-laboratorios.aspx>]. Accessed September 2020.
- [5] Ministry of Health and Welfare. 2020. "Vigilancia en salud pública" [<https://www.minsalud.gov.co/salud/publica/epidemiologia/Paginas/vigilancia-salud-publica.aspx>]. Accessed September 2020.
- [6] National Institute of Health. [www.ins.gov.co]. Accessed September 2020.
- [7] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.
- [8] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.
- [9] VERTIC. "Colombia". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/>]. Accessed September 2020.
- [10] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [<https://bwc-ecbm.unog.ch/state/colombia>]. Accessed September 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

While there is evidence that the country has the capacity to conduct Polymerase Chain Reaction (PCR) based diagnostic testing, there is no evidence that it can specifically use PCR diagnostic testing for anthrax or Ebola. Both the Colombian Agricultural Institute (ICA) and the National Institute of Health (INS) have the capacity of conducting PCR testing. [1, 2] However, there is no evidence of the type of diagnostic tests conducted for Ebola or anthrax by these organisations. A report by the Ministry of Health and the INS indicates that samples of Ebola are inactivated by the laboratory at the INS and sent to a CDC center in Atlanta for testing. [3] In the past, suspected samples of anthrax have been collected from regional laboratories and sent to the microbiology laboratory of the INS for testing. However, there is no evidence of the technique used. [4] The ICA also documents capacity both of PCR testing and anthrax testing, but there is no evidence of the technique used for anthrax in particular [5].

- [1] INS. 2020. "Información sobre pruebas". [<https://www.ins.gov.co/Direcciones/Investigacion/informacion-sobre-pruebas>]. Accessed September 2020.
- [2] ICA. 2003. "Instrucciones generales para el usuario de los servicios oficiales de diagnóstico veterinario en Colombia". [<https://www.ica.gov.co/getattachment/a6ed5564-2686-4ce2-b3d1-60b1be5c5ca6/Publicacion->]. Accessed September

2020.

[3] Ministry of Health. 2019. "Lineamientos para la preparación y respuesta ante la eventual introducción de casos de enfermedad por el virus del Ébola (EVE) en Colombia".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/Lineamientos%20EVE.pdf>]. Accessed September 2020.

[4] Ministry of Health. September 2002. "Informe Epidemiológico Nacional". [<https://www.ins.gov.co/buscador-eventos/IQEN/IQEN%20vol%2007%202002%20num%2018.pdf>]. Accessed September 2020.

[5] ICA. 2020. "Laboratorio Nacional de Diagnostico Veterinario LNDV: Área de Bacteriología".

[<https://www.ica.gov.co/areas/laboratorios/laboratorio-nacional-de-diagnostico-veterinario/bacteriologia>]. Accessed September 2020.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a standardised approach to staff training across the laboratory network. The "General Biosecurity and Biocontainment Guidelines for laboratories of the National Network of Laboratories" includes biosecurity components: risk identification procedures, risk assessment and management, risk prevention and monitoring, biocustody, safe sample handling and transportation, waste management, biosecurity during pandemic events, certification. The guidelines refer to the need of ensuring adequate technical training of workers according to their roles. [1] Resolution 8430 of 1993 of the Ministry of Health addresses biosecurity in institutions conducting research with biological material or pathogens and requires the compliance with adequate staff training, but it does not elaborate further. [2] The National Institute of Health (INS), has issued yearly training guidelines, but these concern broad institutional topics. [3] No further information is available from the National Institute of Health, the Ministry of Agriculture, the Ministry of Defense, or the VERTIC database. [4, 5, 6, 7]. Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [8]

[1] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.

[2] Ministry of Health. "Resolución 8430 de 1993".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

[3] INS. 2019. "Plan Institucional de Capacitación".

[https://www.ins.gov.co/Transparencia/Planes%20estrategicos%20sectoriales%20e%20institucionales/PIC_2019.pdf]. Accessed September 2020.

[4] National Institute of Health. [www.ins.gov.co]. Accessed September 2020.

[5] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.

[6] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.

[7] VERTIC. "Colombia". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation->

database/c/]. Accessed September 2020.

[8] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [https://bwc-ecbm.unog.ch/state/colombia]. Accessed September 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

Regulations require that personnel working in the public sector are subject to background checks, but this does not encompass both public and private laboratories. Employment in the public sector, encompassing the network of laboratories of the public health system and the National Institute of Health, requires background checks (judicial, fiscal and disciplinary records) and also a certificate of physical and mental fitness. This is applicable only to the public sector. [1] There are additional regulations applicable to all laboratories, public and private. Decree 77 of 1997 requires all clinical laboratories to employ licensed professionals (such as bacteriologist or microbiologist). [2] In turn, Law 841 of 2003 regulates the profession of bacteriologist, requiring licensing with the national professional association before practicing (this requires a degree from an accredited university and proof of completion of mandatory social service). [3] No further information is available from the National Institute of Health, the Ministry of Agriculture, the Ministry of Defense, or the VERTIC database. [4, 5, 6, 7]. Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [8]

[1] Public Function. 2017. "Concepto 24771 de 2017 Departamento Administrativo de la Función Pública."

[https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=81674]. Accessed September 2020.

[2] Official Journal. "Decreto 77 of 1997".

[http://www.vertic.org/media/National%20Legislation/Colombia/CO_Decreto_77_de_1997.pdf]. Accessed September 2020.

[3] Public Function. "Ley 841 de 2003". [https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=66168]. Accessed September 2020.

[4] National Institute of Health. [www.ins.gov.co]. Accessed September 2020.

[5] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.

[6] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.

[7] VERTIC. "Colombia". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed September 2020.

[8] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [https://bwc-ecbm.unog.ch/state/colombia]. Accessed September 2020.

1.3.4 Transportation security

1.3.4a

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

Yes = 1 , No = 0

Current Year Score: 1

Colombia has multiple regulations across sectors on the transport of infectious substances, category A and B or equivalent.

The National Institute of Health (INS) published in 2017 the "Procedure for the transport by air of samples and infectious substances for the analysis of events of public health interest in the national territory", with technical and legal requirements adopted by Colombia from the UN's template regulations on the transport of infectious substances. It is intended for laboratory staff, transportation staff, and health and research institutions. [1] It provides guidance on the safe handling of Category A and B substances for air transportation and it constitutes an annex to norm 160 of the Civil Aeronautics Authority, on security in civil aeronautics. [2] The Civil Aeronautics Authority also has norm 175 on transport of dangerous goods, addressing Category B. [3] In 2019, the Ministry of Health with the INS published "Procedure for the collection, handling and transport of samples of laboratory in designated IPS. Ebola Virus Disease (EVD)", addressing Category A substances. [4] Additional regulations are available for equivalent substances, from the Ministry of Transport and the Colombian Institute of Technical Standards and Certification (ICONTEC) on road transport, but they do not use the A or B classification [5, 6, 7].

[1] INS. 2017. "Procedimiento para el transporte por vía aérea de muestras y sustancias infecciosas para análisis de eventos de interés en salud pública en el territorio nacional".

[https://www.ins.gov.co/Direcciones/RedesSaludPublica/DocumentosdeInteresSRNL/Procedimiento%20transporte%20de%20sustancias%20infecciosas_via%20aerea_en%20Colombia.pdf]. Accessed September 2020.

[2] Civil Aeronautics Special Administrative Unit. 2020. "RAC 160".

[<http://www.aerocivil.gov.co/normatividad/RAC/RAC%20%20160%20-%20Seguridad%20de%20la%20Aviación%20Civil.pdf>]. Accessed September 2020.

[3] Civil Aeronautics Special Administrative Unit. 2020. "RAC 175".

[<http://www.aerocivil.gov.co/normatividad/VERSION%20DIC%2031%202016/RAC%20%20175%20-%20Transporte%20sin%20Riesgo%20de%20Mercancías%20Peligrosas%20por%20vía%20Aérea.pdf>]. Accessed September 2020.

[4] Ministry of Health. 2019. "Procedimiento para la recolección, manejo y transporte de muestras de laboratorio en IPS designadas. Enfermedad por Virus del ébola (EVE)".

[https://www.ins.gov.co/Noticias/Ebola/Procedimiento%20laboratorio_INS.pdf]. Accessed September 2020.

[5] Ministry of Transport. 2002. "Decreto 1609 de 2002".

[https://www.vertic.org/media/National%20Legislation/Colombia/CO_Decreto_1609_de_2002.pdf]. Accessed September 2020.

[6] ICONTEC. 1999. "Norma Técnica 4702-6".

[<https://web.mintransporte.gov.co/consultas/mercapeli/Reglamento/Anexos/NTC4702-6.pdf>]. Accessed September 2020.

[7] ICONTEC. 1998. "Norma Técnica 3969".

[<https://web.mintransporte.gov.co/consultas/mercapeli/Reglamento/Anexos/NTC3969.pdf>]. Accessed September 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: 1

There are regulations on the cross-border transfer of biological material considering sender and end-user screening. Resolution 3823 of 1997 requires prior authorisation from the Ministry of Health for the entry or exit of biological material of human origin. Further, a guideline issued by the Ministry of Health describes the requirements for an application, including: written request of the organisation making the application with legal proof of constitution; details of the research team, research protocols and approvals by a bioethics committee; specifications of the sample and packaging compliant with international transport standards or aeronautic rules; details of procedures to be conducted with the samples; destination and authorisation of the local health authority for entry of the sample; details of the transportation company; declaration by lead researcher ensuring the samples will be used only for the stated research protocol; among others. [1, 2]

[1] Ministry of Health. "Resolución 3823 de 1997".

[<https://www.invima.gov.co/documents/20143/453029/Resolución+3823+de+1997.pdf/726c8daf-bcab-7146-4dac-b209d7503f8b>]. Accessed September 2020.

[2] Ministry of Health. 2017. "Lineamientos sobre la entrada y salida del territorio nacional de muestras biológicas y componentes anatómicos de origen humano".

[https://www.unisabana.edu.co/fileadmin/Archivos_de_usuario/Documentos/Documentos_Investigacion/Docs_Comite_Etica/lineamientos-entrada-y-salida-territorio-nacional-de-muestras-biologicas-y-componentes-anatomicos-de-origen-humano-universidad-de-la-sabana.pdf]. Accessed September 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: 1

The country has both biosafety/biosecurity guidelines for its laboratory network and enforceable regulations on biological research. In August 2020, the Ministry of Health and Welfare issued the document "General Biosecurity and Biocontainment Guidelines for laboratories of the National Network of Laboratories" with the aim of guiding the laboratory network in the establishment of biosecurity and biocontainment processes and procedures, and in risk management, with a focus on those laboratories performing procedures that include isolated pathogens or samples containing them. The guidelines address aspects of biosafety, including: identification and management of risks to staff, safe sample handling and personal protection and safe waste management by staff. [1] Enforcement of these guidelines is supported by a number of regulations in the matter. Resolution 8430 of 1993 of the Ministry of Health in particular addresses biosecurity/biosafety in institutions conducting research with biological material or pathogens and requires the compliance with the standards or norms produced by the Ministry of Health with regards to: facilities and equipment, procedural documentation, staff training, surveillance, security monitoring, as well as documentation of risks and containment capacity, among others. The resolution

also establishes basic conditions in terms of biosafety such as the need for laboratories to issue procedural manuals including staff safety and management of emergencies. It is also required for research institutions to establish biosafety supervisory commissions. [2]

[1] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.

[2] Ministry of Health. "Resolución 8430 de 1993".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 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: 1

There is an established agency responsible for the enforcement of biosafety legislation and regulations in Colombia. The Ministry of Health is the agency in charge of issuing policies and technical/administrative norms for mandatory compliance by all agents in the healthcare system and enforcement is delegated to sub-national health authorities. [1] Decree 2323 of 2006 regulating the national laboratory network, and aspects of biosafety/biosecurity, states that health authorities can enforce rules and impose penalties due to lack of compliance. [2] Further, Decree 2240 of 1996 defines regional, municipal or local health authorities as those with the capacity for enforcement. [3] Thus, sub-national health secretaries (existing in departments and in the capital), have a role in enforcement of norms and legislation issued nationally for the health sector. [4]

[1] Ministry of Health. "Resolución 8430 de 1993".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

[2] Ministry of Social Protection. "Decreto 2323 de 2006".

[https://www.icbf.gov.co/cargues/avance/docs/decreto_2323_2006.htm]. Accessed September 2020.

[3] Ministry of Health. "Decreto 2240 de 1996".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Decreto-2240-de-1996.pdf>]. Accessed September 2020.

[4] Secretary of Health Bogota. 2020. "Plataforma Estratégica".

[<http://www.saludcapital.gov.co/Paginas2/ObjetivosEstrategicos.aspx>]. Accessed September 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a standardised approach to staff training across the laboratory network. The "General Biosecurity and Biocontainment Guidelines for laboratories of the National Network of Laboratories" includes biosafety/biosecurity components: risk identification procedures, risk assessment and management, risk prevention and monitoring, biocustody, safe sample handling and transportation, waste management, biosecurity during pandemic events, certification. The guidelines refer to the need of ensuring adequate technical training of workers according to their roles. [1] Resolution 8430 of 1993 of the Ministry of Health addresses biosecurity in institutions conducting research with biological material or pathogens and requires the compliance with adequate staff training, but it does not elaborate further. [2] The National Institute of Health (INS), has issued yearly training guidelines, but these concern broad institutional topics. [3] The INS also has a biosafety manual, but it does not include a specific training plan. [4] No further information is available from the National Institute of Health, the Ministry of Agriculture, the Ministry of Defense, or the VERTIC database. [5, 6, 7, 8]. Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [9]

[1] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.

[2] Ministry of Health. "Resolución 8430 de 1993". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

[3] INS. 2019. "Plan Institucional de Capacitación". [https://www.ins.gov.co/Transparencia/Planes%20estrategicos%20sectoriales%20e%20institucionales/PIC_2019.pdf]. Accessed September 2020.

[4] INS. 2012. "Manual de bioseguridad del INS". [<https://www.ins.gov.co/Transparencia/Manuales/MANUAL%20DE%20BIOSEGURIDAD%20DEL%20INS%20MNL-A01.0000-001.pdf>]. Accessed September 2020.

[5] National Institute of Health. [www.ins.gov.co]. Accessed September 2020.

[6] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.

[7] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.

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

[9] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [<https://bwc-ecbm.unog.ch/state/colombia>]. Accessed September 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 evidence of a formal effort to identify research on dangerous agents or dual-research. However, there is some recent progress in that direction. Resolution 561 of 2019 of the Ministry of Health and Welfare [1] mandates the creation of

the National Network of Laboratories (RELAB), for the integration of an information system among public and private laboratories handling tests of events of public health interest. [2] The aims of this initiative include: improving the knowledge of testing capacity at the national level, enabling authorisation of providers to contract with health authorities, improving quality standards, and understanding of the handling of strains requiring special control in laboratories (in line with the biological weapons convention). [3] For registration with RELAB, laboratories need to submit information on: testing methods, biocontainment and details of handling of strains requiring special control (such as viruses, bacteria, toxins and fungi). Laboratories then will undergo a verification process by public health authorities. [2, 3] A recent biosecurity guidelines document for the network requires laboratories handling biological agents or toxins to maintain a detailed and safe inventory. [4] As of June 20 2020, there were 69 laboratories registered in RELAB, many laboratories still have not registered. [5] No further information is available from the Ministry of Health, the Ministry of Agriculture, the Ministry of Defense, the Ministry of Science and Technology or the VERTIC database. [6, 7, 8, 9, 10]. Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [11]

[1] Ministry of Health and Welfare. 2019. "Resolución 561 de 2019".

[https://www.minsalud.gov.co/Normatividad_Nuevo/Resolución%20No.%20561%20de%202019.pdf]. Accessed September 2020.

[2] Ministry of Health and Welfare. 2019. "Incorporación a la Red Nacional de Laboratorios de Colombia".

[<https://www.ins.gov.co/Direcciones/RedesSaludPublica/GestiondeCalidadLaboratorios/TalleresdeFortalecimiento/Presentación%20RNL%20y%20RELAB.pdf>]. Accessed September 2020.

[3] Ministry of Health and Welfare. 2019. "Abecé - Registro de laboratorios - RELAB".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/abece-relab.pdf>]. Accessed September 2020.

[4] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.

[5] Ministry of Health and Welfare. 2020. "RELAB, una red que permite identificar la capacidad de respuesta de los laboratorios". [<https://www.minsalud.gov.co/Paginas/RELAB-una-red-que-permite-identificar-la-capacidad-de-respuesta-de-los-laboratorios.aspx>]. Accessed September 2020.

[6] Ministry of Health. [www.minsalud.gov.co]. Accessed September 2020.

[7] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.

[8] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.

[9] Ministry of Science and Technology. [www.minciencias.gov.co]. Accessed September 2020.

[10] VERTIC. "Colombia". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/>]. Accessed September 2020.

[11] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [<https://bwc-ecbm.unog.ch/state/colombia>]. Accessed September 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 are multiple rules on the responsible conduct of research, however there is no evidence of specific regulations on dual-research. Resolution 8430 of 1993 of the Ministry of Health addresses biosecurity/biosafety in institutions conducting research with biological material or pathogens and requires the compliance with standards in: facilities and equipment,

procedural documentation, staff training, surveillance, security monitoring, as well as documentaton of risks and containment capacity, among others. It also mandates the establishment of a commission for oversight of biosafety in institutions dealing with pathogens or biological material and a committee for bioethics when dealing with humans. [2] Law 841 of 2003 regulates the profession of bacteriologist, requiring licensing with the national professional association before practicing (this requires a degree from an accredited university and proof of completion of mandatory social service). The law also includes a code of bioethics, which for instance requires that research is conducted for benefit of humans, without detriment of the environment, and in no case should seek harming of humans or the creation of biological weapons (Article 19). [3] No further information is available from the Ministry of Health, the Ministry of Agriculture, the Ministry of Defense, the Ministry of Science and Technology or the VERTIC database. [4, 5, 6, 7, 8]. Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [9]

[1] Ministry of Health and Welfare. 2020. "Lineamientos Generales de Bioseguridad y Biocontención para los laboratorios de la Red Nacional de Laboratorios". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/ver01-guia-lineamientos-bioseguridad-biocontencion-rnl.pdf>]. Accessed September 2020.

[2] Ministry of Health. "Resolución 8430 de 1993". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

[3] Public Function. "Ley 841 de 2003". [<https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=66168>]. Accessed September 2020.

[4] Ministry of Health. [www.minsalud.gov.co]. Accessed September 2020.

[5] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.

[6] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.

[7] Ministry of Science and Technology. [www.minciencias.gov.co]. Accessed September 2020.

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

[9] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [<https://bwc-ecbm.unog.ch/state/colombia>]. Accessed September 2020.

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of an agency responsible for oversight of dual-use research. Law 1193 of 2008, amending Law 841 of 2003, mandates the creation of National Bioethical and Deontological Tribunals of Bacteriology, in charge of vigilating compliance with the code of bioethics of the profession. The tribunals shall be formed of experienced professionals and a lawyer appointed by the professional association of bacteriologists. Bacteriologists may be sanctioned with cancellation of their professional license. [1] The Ministry of Health is the agency in charge of issuing policies and technical/administrative norms for mandatory compliance by all agents in the healthcare system and enforcement is delegated to sub-national health authorities. [2] Decree 2323 of 2006 regulating the national laboratory network, and aspects of biosafety/biosecurity, states that health authorities can enforce rules and impose penalties due to lack of compliance. [3] Further, Decree 2240 of 1996 defines regional, municipal or local health authorities as those with the capacity for enforcement. [4] Thus, sub-national health secretaries (existing in departments and in the capital), have a role in enforcement of norms and legislation issued nationally for the health sector. [5] No further information is available from the Ministry of Health, the Ministry of

Agriculture, the Ministry of Defense, the Ministry of Science and Technology or the VERTIC database. [6, 7, 8, 9, 10] Although Colombia has submitted Confidence Building Measures reports for 2020 and 2019 under the United Nations Biological Weapons Convention, access to the reports is restricted, and it is unclear if they contain information on this subject. [11]

- [1] Official Journal. "Ley 1193 de 2008". [<https://www.ica.gov.co/getattachment/83ef64b2-33cc-4dfa-865b-1f5b43544da9/2008L1193.aspx>]. Accessed September 2020.
- [2] Ministry of Health. "Resolución 8430 de 1993". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.
- [3] Ministry of Social Protection. "Decreto 2323 de 2006". [https://www.icbf.gov.co/cargues/avance/docs/decreto_2323_2006.htm]. Accessed September 2020.
- [4] Ministry of Health. "Decreto 2240 de 1996". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Decreto-2240-de-1996.pdf>]. Accessed September 2020.
- [5] Secretary of Health Bogota. 2020. "Plataforma Estratégica". [<http://www.saludcapital.gov.co/Paginas2/ObjetivosEstrategicos.aspx>]. Accessed September 2020.
- [6] Ministry of Health. [www.minsalud.gov.co]. Accessed September 2020.
- [7] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed September 2020.
- [8] Ministry of Defense. [www.mindefensa.gov.co]. Accessed September 2020.
- [9] Ministry of Science and Technology. [www.minciencias.gov.co]. Accessed September 2020.
- [10] VERTIC. "Colombia". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/>]. Accessed September 2020.
- [11] United Nations Biological Weapons Convention Confidence Building Measures. "Colombia". [<https://bwc-ecbm.unog.ch/state/colombia>]. Accessed September 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 legislation and/or regulation requiring the screening of synthesized DNA for GMOs but there is no evidence of the specific screening processes. Resolution 2935 of 2001 by the Colombian Agricultural Institute (ICA) (under the Ministry of Agriculture) regulates the procedure for the introduction, production, release, commercialization, research, development biological and quality control of Genetically Modified Organisms (GMOs) of interest in animal health and livestock production, their derivatives and products that contain them. [1] ICA's Resolution 000946 further refers to seeds, plants, animals, fish and genetically modified microorganisms. [2] For commercialization, authorisation is needed from ICA, subject to an assessment of biosecurity, biological testing and others as required. Evaluation by ICA will consider a risk assessment and review by the National Technical Council. [1] The council will include delegates of: Ministry of Agriculture, Ministry of Health, Ministry of Environment, the scientific authority (Colciencias) and the ICA. [3] There is evidence that ICA is capable of conducting DNA testing, but existing regulation does not specify what parameters are considered before approval of commercialization. [4] Resolution 8430 of 1993 on the norms for health research requires authorisation from the Ministry of Health for experimentation with different types of DNA modification in the context of humans or human health, including recombinant DNA. [5] Decree 4525 of 2005 stipulates that for activities such as use or manipulation of genetically modified

organisms for environmental use or for health or human consumption, authorisations will be in the remit of the ministries of environment and health, which should also appoint National Technical Councils to conduct respective risk assessments. [2]

- [1] Colombian Agricultural Institute (ICA). "RESOLUCIÓN No. 2935 de Octubre 23 de 2001".
[https://www.vertic.org/media/National%20Legislation/Colombia/CO_Resolucion_2935_de_2001.pdf]. Accessed September 2020.
- [2] Colombian Agricultural Institute (ICA). 2006. "Resolución 000946".
[<https://www.ica.gov.co/areas/pecuaria/servicios/regulacion-y-control-de-medicamentos-veterinarios/resolucion-946-de-2006.aspx>]. Accessed September 2020.
- [3] Ministry of Agriculture and Rural Development. "DECRETO NÚMERO 4525 DE 2005".
[<https://www.ica.gov.co/getattachment/6ea8d6c3-aadc-42ad-958d-2eb377cfe528/2005D4525.aspx>]. Accessed September 2020.
- [4] Leguizamon et al. 2018. "Panorama general de los organismos genéticamente modificados en Colombia y en el mundo: Capacidad nacional de detección". [http://www.scielo.org.co/scielo.php?pid=S0123-34752018000200101&script=sci_arttext&tIing=pt#B78]. Accessed September 2020.
- [5] Ministry of Health. "Resolución 8430 de 1993".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 1

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 2

The national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests. There is evidence of availability in the national laboratory system of five tests: polymerase chain reaction (PCR) testing for Influenza virus (flu) [1] ; virus culture for poliovirus (polio) [2] ; serology for HIV [3] ; microscopy for mycobacterium tuberculosis (tuberculosis/TB) [4] ; rapid diagnostic testing for plasmodium spp. (malaria) [5]. This is based on the availability of guidelines for the laboratory-based surveillance of these diseases, addressing the specific testing methods. The guidelines apply to the National Reference Laboratory of the National Institute of Health, and broadly to the national network of laboratories.

[1] National Institute of Health. 2017. "Guía para la vigilancia por laboratorio del virus de la influenza y otros virus respiratorios". [<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Guia%20para%20la%20Vigilancia%20por%20Laboratorio%20de%20Virus%20Respiratorios.pdf>]. Accessed September 2020.

[2] National Institute of Health. 2019. "Guía para la vigilancia por laboratorio de la poliomeilitis por poliovirus". [<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Guia-para-la-vigilancia-por-laboratorio-de-la-PFA-por-poliovirus-2019.pdf>]. Accessed September 2020.

[3] National Institute of Health. 2017. "Guía para la vigilancia por laboratorio del virus de inmunodeficiencia humano - VIH". [<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Guia%20Vigilancia%20por%20laboratorio%20VIH.pdf>]. Accessed September 2020.

[4] National Institute of Health. 2020. "Guía para la vigilancia por laboratorio de tuberculosis". [<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Guia%20para%20la%20vigilancia%20por%20laboratorio%20de%20Tuberculosis%202020.pdf>]. Accessed September 2020.

[5] National Institute of Health. 2017. "Guía para la vigilancia por laboratorio de parásitos del género plasmodium spp." [<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Guia%20Vigilancia%20por%20laboratorio%20Plasmodium%20spp.pdf>]. Accessed September 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: 1

There is a national plan for conducting testing during a public health emergency (Covid-19), which includes considerations for testing scaling capacity and defining goals for testing. However, there is no guideline in place for scaling testing capacity in the case of other types of diseases, including novel pathogens.

A comprehensive document "Guidelines, Orientations and Protocols for Facing Covid-19 in Colombia" has been issued by the Ministry of Health in 2020. Within a chapter of diagnostics it describes the capacity of the public health laboratory network and the possibilities for scaling up testing, which includes collaboration with other laboratories authorised by the National Institute of Health (national reference laboratory) or activating a mechanism for certification of third-party laboratories in case of public health emergencies (Resolution 1619 del 2015). The document also includes a chapter with the guidelines for the roll out of molecular RT-PCR, antigen testing and serological tests for SARS-CoV-2 (COVID-19) with indications of their objectives, and the groups they should be administered to, including health workers. [1] The document also refers to the "Guide for laboratory surveillance of influenza viruses and other respiratory viruses" of the National Institute of Health (INS) which defines the situation of "unusual" acute respiratory infection, indicating they should be tested in the national reference laboratory of the INS (this is a separate document). However, the influenza document primarily outlines protocols for how to conduct testing for different disease types, not how to scale testing during emergencies. [2] Similarly, resources from the INS and Ministry of Health refer to testing processes for specific types of diseases (for example, Covid-19, Dengue, Zika, Chikungunya, influenza and respiratory viruses), but do not outline processes to scale testing during an emergency. [3, 4]

[1] Ministry of Health. 2020. "Guidelines, Orientations and Protocols to face COVID-19 in Colombia".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/lineamientos-orientaciones-protocolos-covid19-compressed.pdf>]. Accessed September 2020.

[2]. INS. 2017. "Guía para la vigilancia por laboratorio del virus de la influenza y otros virus respiratorios".

[<https://www.ins.gov.co/buscador-eventos/Informacin%20de%20laboratorio/Guia%20para%20la%20Vigilancia%20por%20Laboratorio%20de%20Virus%20Respiratorios.pdf>]. Accessed September 2020.

[3] INS. 2020. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020.

[4] Ministry of Health. 2020. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 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

Both Colombia's two national reference laboratories, the National Institute of Health, INS, and the National Institute for Drug and Food Surveillance, INVIMA, have ISO accreditation [1,2]. The National Accreditation Organism of Colombia (ONAC) is responsible for the accreditation process and provides a publicly available directory of all accredited institutions. In 2014 it accredited both the INS and INVIMA with ISO/IEC: 17025:2005 [1,2,3]. According to the International Organisation for

Standardization, "ISO/IEC 17025:2005 specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling. It covers testing and calibration performed using standard methods, non-standard methods, and laboratory-developed methods. It is applicable to all organizations performing tests and/or calibrations. These include, for example, first-, second- and third-party laboratories, and laboratories where testing and/or calibration forms part of inspection and product certification" [4].

[1] ONAC. 2017. "El Organismo Nacional de Acreditacion de Colombia Acredita a Instituto Nacional de Salud".

[<https://onac.org.co/certificados/13-LAB-001.pdf>]. Accessed September 2020.

[2] ONAC. 2017. "El Organismo Nacional de Acreditacion de Colombia Acredita a Instituto Nacional de Vigilancia, de Medicamentos, y Alimentos, Invima". [<https://onac.org.co/certificados/13-LAB-034.pdf>]. Accessed September 2020.

[3] ONAC. 2019. "Directorio de Acreditacion". [<https://onac.org.co/directorio-de-acreditados>]. Accessed September 2020.

[4] ISO. 2019. "ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories".

[<https://www.iso.org/standard/39883.html>]. Accessed September 2020.

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The National Reference Laboratory at the National Institute of Health (INS) in Colombia has participated in voluntary external quality assurance reviews. It has been assessed by the Panamerican Health Organization (PAHO) on the microscopic diagnosis of Leishmaniasis (2019). INVIMA has also received certification in Good Practices for Pharmaceutical Quality Control Laboratories by the WHO in 2020. [2] According to Article 9 of Decree 2323 (2006) on the National Laboratory System, the two reference laboratories the National Health Institute (Instituto Nacional de Salud) INS and INVIMA, are required to participate in the External Performance Evaluation Programs (PEED) conducted by international authorities [3].

[1] INS. 2019. "Programa regional de evaluación externa directa del desempeño para el diagnóstico microscópico de leishmaniasis." [<https://www.ins.gov.co/TyS/programas-de-calidad/Programas%20Regionales/PROTOCOLO%20LEISHMANIASIS%20REGIONAL%20ESPAÑOL%20CICLO%202019.pdf>]. Accessed September 2020.

[2] INVIMA. 2020. "Colombia recibe la primera certificación en Buenas Prácticas para Laboratorios de Control de Calidad Farmacéutica por parte de la OMS". [<https://www.invima.gov.co/colombia-recibe-la-primera-certificacion-en-buenas-practicas-para-laboratorios-de-control-de-calidad-farmaceutica-por-parte-de-la-oms>]. Accessed September 2020.

[3] Ministry of Social Protection. 2006. "Decreto 2323 de 2006".

[https://www.icbf.gov.co/cargues/avance/docs/decreto_2323_2006.htm]. Accessed September 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a unified nationwide specimen transport system. Samples are collected by Health Provider Institutes (IPS) in municipalities, and then transferred to regional Public Health Laboratories. In some instances the regional divisions will transfer samples to the National Reference Laboratory in Bogotá (INS). [1] Available guidelines indicate that when road or air transportation is required the transportation companies should be duly authorised to handle biological or infectious material. [2] Guidelines from INS on air transportation specify the training that transporting companies should undergo to handle Category A or B substances. There is no reference to a specific transport system for specimen available nationwide. [3]

[1] Ministry of Health and Welfare. 2019. "Procedimiento para la recolección, manejo y transporte de muestras de laboratorio en IPS designadas".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/Procedimiento%20No%208.pdf>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Guidelines, Orientations and Protocols to face COVID-19 in Colombia".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/lineamientos-orientaciones-protocolos-covid19-compressed.pdf>]. Accessed September 2020.

[3] INS. 2017. "Procedimiento para el transporte por vía aérea de muestras y sustancias infecciosas, para análisis de eventos de interés en salud pública en el territorio nacional".
[https://www.ins.gov.co/Direcciones/RedesSaludPublica/DocumentosdelInteresSRNL/Procedimiento%20transporte%20de%20sustancias%20infecciosas_via%20aerea_en%20Colombia.pdf]. Accessed September 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 2

There is a plan to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. Resolution 1619 of 2015 allows the National Institute of Health (INS), as a reference laboratory, to define the conditions to authorise third-party providers to conduct testing during events of public health interest. Third-party providers are defined as: "clinical, pathological, toxicology, reproductive medicine, genetics, bromatology, universities laboratories and others". [1] During the Covid-19 pandemic, national guidelines specify the requirements for laboratories to conduct authorised testing: they should offer INVIMA-approved tests, they must have undergone a quality assessment with a laboratory in the public network, they should be enrolled in the National Network of Laboratories (RELAB), they should undergo a validation of the test (with INS), they should establish a process for quality control with the regional public health laboratory and they should deliver the results to the relevant health authority. [2] The Ministry of Health reported an expansion from 1 to 64 laboratories authorised for testing of the new virus, within a period of 90 days, helped by the integration of university laboratories. [3]

[1] Ministry of Health and Welfare. 2015. "Resolución 1619 de 2015".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/resolucion-1619-del-2015.PDF>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Lineamientos, Orientaciones y Protocolos para enfrentar la COVID-19 en Colombia".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/lineamientos-orientaciones-protocolos-covid19-compressed.pdf>]. Accessed September 2020.

[3] Ministry of Health. 2020. "Colombia llegó a 64 laboratorios para coronavirus en 90 días".
[<https://www.minsalud.gov.co/Paginas/Colombia-llego-a-64-laboratorios-para-coronavirus-en-90-dias.aspx>]. Accessed September 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 1

Although there is evidence that Colombia has mechanisms for event-based surveillance of infectious diseases, there is no evidence to support the type and frequency of analysis that exists at present as the Ministry of Health website is not functional as of June 2021. The Ministry of Health houses the National Liaison Center (CNE), an epidemiological and sanitary "intelligence" unit, which performs the functions of monitoring, evaluation and notification to the World Health Organization (WHO), on all those Public Health Events of International Importance (ESPII) that are registered in the country. It operates continuously 24 hours a day, 365 days a year. It can be used to notify unforeseen events, caused by diseases or agents in eradication phase; unusual events caused by unknown agents; evolution of cases more serious than foreseen; as well as the appearance of diseases, events or risks to public health. The CNE receives reports made both by entities belonging to the health sector or strategic allies, independent professionals, social actors and the community in general. Reports can be made by phone or via email. [1, 2]. The CNE publishes daily surveillance bulletins of national and international news, analyzing their accuracy. [3] The National Institute of Health (INS), also describes a mechanism called Center for Emergency Operations, Events and Epidemics in Public Health whose objective is to optimize preparedness in outbreak situations by gathering information from Public Health Surveillance System (SIVIGILA), media monitoring, rumor reporting in social networks and alerts from other institutions, but information on the frequency of analysis is not available. [3, 4]

[1] Ministry of Health. 2020. "Centro Nacional Enlace -¿Quiénes somos?".
[<https://www.minsalud.gov.co/salud/publica/CNE/Paginas/centro-nacional-enlace-quienes-somos.aspx>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Red de Comunicaciones Centro Nacional de Enlace (CNE)".
[<https://www.minsalud.gov.co/salud/publica/CNE/Paginas/mapa-directorio-entidades-territoriales.aspx>]. Accessed September 2020.

[3] Ministry of Health. "Boletín diario de noticias de interés sanitario - Centro Nacional de Enlace".
[<https://www.minsalud.gov.co/salud/publica/CNE/Paginas/boletines.aspx>]. Accessed September 2020.

[4] INS. 2020. "Lineamientos nacionales 2020".
[<https://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/Lineamientos%202020.pdf>]. Accessed September 2020.

[5] INS. 2017. "Implementación del Centro de Operaciones de Emergencia en Salud pública COE-ESP del Instituto Nacional de Salud, Colombia." [<https://www.ins.gov.co/buscador-eventos/IQEN/IQEN%20vol%2023%202018%20num%203.pdf>]. Accessed September 2020.

2.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence via the Ministry of Health and Welfare, National Institute of Health, or the WHO and its Disease Outbreak News page that Colombia has reported a potential PHEIC to the WHO within the last two years. The country did not report on novel coronavirus to the WHO. [1,2,3].

[1] Ministry of Health and Welfare. 2020. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[2] National Institute of Health. 2020. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020.

[3] WHO. 2019. "Emergencies, Preparedness, Response". [<https://www.who.int/csr/don/en/>] Accessed September 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 evidence of an electronic system which functions at the national level and sub-national level. Decree 3518 of 2006 established SIVIGILA, the country's public health surveillance system. According to Article 2, it is mandatory for all facilities of the Health and Welfare system to report into the SIVIGILA [1]. The National Institute of Health (INS) defines it as a "simple tool, automated and standardized for all users in the country", with the aim of capturing and transmitting data in a timely and complete manner, based on systematic monitoring. Implemented since 2007, SIVIGILA relies on a software application, is used across all territorial entities and institutions that provide health services in the country, and is updated periodically. [2] The SIVIGILA portal by the INS offers all surveillance reports from 2007 to this day. The latest report shows weekly data up to April 2020 and includes information on a wide range of diseases (events) across all departments and municipalities of the country. [3]

[1] Ministry of Health and Welfare. 2006. "Decreto 3518 de 2006".

[https://www.minsalud.gov.co/Normatividad_Nuevo/DECRETO%203518%20DE%202006.pdf]. Accessed September 2020.

[2] INS. 2020. "Manual del Usuario".

[https://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/1.%20Manual_SIVIGILA_2018_2020.pdf].

Accessed September 2020.

[3] INS. 2020. "Vigilancia rutinaria". [http://portalsivigila.ins.gov.co/sivigila/documentos/Docs_1.php]. Accessed September 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 1

SIVIGILA collects ongoing laboratory data regarding infectious disease surveillance. SIVIGILA requires weekly reporting from health institutions, while it offers the functionality for immediate notifications (for events categorised as "high impact" for public health) [1, 2].

[1] INS. 2020. "Manual del Usuario".

[https://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/1.%20Manual_SIVIGILA_2018_2020.pdf].

Accessed September 2020.

[2] INS. 2020. "Manual de indicadores".

[<http://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/5.%20Manual%20de%20 analisis%20de%20indicadores.pdf>]. Accessed September 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 0

There is no evidence of common use of electronic health records nationwide. A 2016 study from the Pan-American Health Organization (PAHO) refers to many areas in Colombia lacking connectivity needed for EHR, while some EHR implementation existed in some institutions but without interoperability. [1] The government has recently legislated on the matter. Law 2015 of 2020 provides for the creation for a national interoperable EHR system, with an implementation deadline in five years. [2, 3]

[1] PAHO. 2016. "Electronic Medical Records in Latin America and the Caribbean".

[https://iris.paho.org/bitstream/handle/10665.2/28210/9789275118825_eng.pdf?sequence=1&isAllowed=]. Accessed September 2020.

[2] Congress of Colombia. "Law 2015 of 2020".

[<https://dapre.presidencia.gov.co/normativa/normativa/LEY%202015%20DEL%2031%20DE%20ENERO%20DE%202020.pdf>]. Accessed September 2020.

[3] Ministry of Health. 2020. " Así funcionará la historia clínica electrónica en Colombia".

[<https://www.minsalud.gov.co/Paginas/Asi-funcionara-la-historia-clinica-electronica-en-Colombia.aspx>]. Accessed September 2020.

2.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that the national public health system has access to electronic health records of individuals. Colombia's health system is made up of a social security sector and a private sector. The General Social Security Health System has two main plans: contributory and subsidized. The contributory regime covers salaried workers, pensioners, and independent

workers, and the subsidized plan those who can not afford to pay. Enrollment in the General Social Security Health System is compulsory and is handled through public or private health promotion agencies (known as EPSs). EPSs are responsible for organising and guaranteeing the provision of health services for their enrolled populations. EPS are also required to recruit health service providers. Health care is provided by institutional health service providers, which may or may not be part of the EPS. The Ministry of Health and Welfare coordinates, directs and controls the system. Furthermore, at the sub-national level there Entidades Territoriales (which may comprise departments, municipalities, districts or other) mainly responsible for carrying out public health actions, under the supervision of central government, where a national perspective is relevant. [1, 2] Since widespread use of EHR is still lacking and is limited by lack of interoperability [3] there is not sufficient evidence that the public health system has access to electronic health records of individuals. An exception is found in Bogota. In August 2019 the local government enabled what was claimed to be the first online platform for interoperability and access to clinical records in Latin America, covering users of the city's public health network. [4]

[1] OECD. 2015. "Health and health care in Colombia". [<https://www.oecd-ilibrary.org/docserver/9789264248908-5-en.pdf?expires=1599320611&id=id&accname=guest&checksum=93B870560E3ED2ECE3DA3BF36FDDA96>]. Accessed September 2020.

[2] PAHO. "Colombia - Overall context". [<https://www.paho.org/salud-en-las-americas-2017/?p=2342>]. Accessed September 2020.

[3] PAHO. 2016. "Electronic Medical Records in Latin America and the Caribbean". [https://iris.paho.org/bitstream/handle/10665.2/28210/9789275118825_eng.pdf?sequence=1&isAllowed=]. Accessed September 2020.

[4] Observatorio de Salud de Bogotá. 2019. "¡A un clic!, historia clínica en la red pública de Bogotá". [<http://saludata.saludcapital.gov.co/osb/index.php/2019/08/16/a-un-clic-historia-clinica-en-la-red-publica-de-bogota/>]. Accessed September 2020.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of data comparability for EHRs. A study from the Pan-American Health Organization (PAHO) refers to many areas in Colombia lacking connectivity needed for EHR, while some EHR implementation existed in some institutions but without interoperability. [1] The government has recently legislated on the matter. Law 2015 of 2020 provides for the creation for a national interoperable EHR system, with an implementation deadline in five years. [2, 3] In August 2019 the local government of Bogota enabled what was claimed to be the first online platform for interoperability and access to clinical records in Latin America, covering users of the city's public health network. [4] A 2019 document from the Ministry of Health on the interoperability of health records in Colombia does not mention the existence of data comparability standards. [5]

[1] PAHO. 2016. "Electronic Medical Records in Latin America and the Caribbean". [https://iris.paho.org/bitstream/handle/10665.2/28210/9789275118825_eng.pdf?sequence=1&isAllowed=]. Accessed September 2020.

[2] Congress of Colombia. "Law 2015 of 2020". [<https://dapre.presidencia.gov.co/normativa/normativa/LEY%202015%20DEL%2031%20DE%20ENERO%20DE%202020.pdf>]. Accessed September 2020.

[3] Ministry of Health. 2020. " Así funcionará la historia clínica electrónica en Colombia". [<https://www.minsalud.gov.co/Paginas/Asi-funcionara-la-historia-clinica-electronica-en-Colombia.aspx>]. Accessed September

2020.

[4] Observatorio de Salud de Bogotá. 2019. "¡A un clic!, historia clínica en la red pública de Bogotá".

[<http://saludata.saludcapital.gov.co/osb/index.php/2019/08/16/a-un-clic-historia-clinica-en-la-red-publica-de-bogota/>]. Accessed September 2020.

[5] Ministry of Health. 2019. "Interoperabilidad de Datos de la Historia Clínica en Colombia".

[<https://www.minsalud.gov.co/ihc/Documentos%20compartidos/ABC-IHC.pdf>]. Accessed September 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: 1

There is evidence of mechanisms at the relevant ministries responsible for animal, human, and wildlife surveillance to communicate and share data. Decree 2323 of 2006 established the National Intersectoral Commission for the National Laboratory Network (CNIRNL). The CNIRNL was configured as an advisory and guidance body for the entire network, for the the definition of proposals and intersectoral guidelines to support public health objectives. The Commission is made up of: Ministry of Health and Welfare, National Institute of Health (INS), National Food and Drug Surveillance Institute (INVIMA), Colombian Agricultural Institute (ICA), Superintendency of Industry and Commerce, Colombian Geological Service, Institute of Hydrology, Meteorology and Environmental Studies, Public Health Laboratories, academia and Institute of Legal Medicine and Forensic Sciences. However, the extent to which data sharing is taking place is unclear. [1, 2] There are examples of ad-hoc multi-sector collaboration such as: between the National Institute of Health (INS), the Colombian Agricultural Institute (ICA) and the National Food and Drug Surveillance Institute (INVIMA) for the production of the National Zoonosis report published in 2019. [3] The report addresses surveillance of wildlife and brucellosis monitoring, among others. Similarly, the document "Analysis of the environmental health situation of the zoonosis component" was produced in collaboration between the INS, the ICA, INVIMA, the Ministry of Environment and the Ministry of Agriculture. However these do not refer to specific data sharing mechanisms. [4]

[1] Ministry of Health. 2012. "Plan de Acción para la Comisión Nacional Intersectorial para la Red Nacional de Laboratorios CNIRNL 2012-2015". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/plan-accion-cnirnl-2012-2015.pdf>]. Accessed September 2020.

[2] Ministry of Health. [www.minsalud.gov.co]. Accessed September 2020.

[3] Ministry of Health and Welfare. 2019. "Informe Nacional de Zoonosis 2018".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SA/informe-nacional-zoonosis-2018.pdf>]. Accessed September 2020.

[4] Ministry of Health. 2016. "Documento de análisis de la situación en salud ambiental del componente de zoonosis".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/SA/analisis-situacion-salud-ambiental-zoonosis.pdf>]. Accessed September 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 1

Both Colombia's National Institute of Health (INS) and the Colombian Agricultural Institute (ICA) publish de-identified health surveillance data on disease outbreaks via publicly available reports on a weekly basis. In regards to the ICA, its weekly epidemiological bulletin records all the suspicions of health events in the country associated with nine diseases of official control. [1] In regards to the INS's weekly bulletin, reports offer information regarding diseases of public health concern, including dengue, tuberculosis, Zika and acute respiratory infections [2]. Both publications are up to date, with no more than a week lag from the time this verification was conducted.

[1] ICA. 2020. "Boletines Epidemiológicos Semanales". [<https://www.ica.gov.co/getdoc/490dd300-0992-4264-87da-cf936f8cc028/semanal.aspx>]. Accessed September 2020.

[2] INS. 2020. "Boletín Epidemiológico". [<https://www.ins.gov.co/buscador-eventos/Paginas/Vista-Boletin-Epidemiologico.aspx>]. Accessed September 2020.

2.4.3b

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

Yes = 1 , No = 0

Current Year Score: 1

The country makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available online. The national government has enabled a dedicated website for monitoring the Covid-19 situation, including epidemiology, with daily cases and mortality nationally and for sub-national entities. The portal also includes health promotion resources and updates on government actions taking place. [1] The website of the Ministry of Health also features similar information, in addition to information on capacity of the healthcare system. [2] Both portals are updated daily.

[1] Government of Colombia. 2020. "El Coronavirus en Colombia". [<https://coronaviruscolombia.gov.co/Covid19/index.html>]. Accessed September 2020.

[2] Ministry of Health and Welfare. 2020. "Coronavirus (Covid-19)". [<https://covid19.minsalud.gov.co/>]. Accessed September 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

According to Law 1581 of 2012 on the Protection of Personal Data, the confidentiality of identifiable health information for individuals is protected. Specifically, Article 5 defines sensitive personal data to include sexual, health, and biometric data. Article 6 describes that any use of such data is prohibited except when the individual has given his explicit authorization to said action, with some exceptions, such as when it is necessary to safeguard the individual who is physically or legally incapacitated, when required for judicial proceedings or in some cases of handling by not-for-profits. When sensitive data is to be used for estatistical, historic or scientific purposes, the identity of the sources should be suppressed. [1].

[1] Congress of Colombia. 2012. "Ley Estatutaria 1581 de 2012".

[https://www.defensoria.gov.co/public/Normograma%202013_html/Normas/Ley_1581_2012.pdf]. Accessed September 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: 1

There is publicly available evidence that Colombia has legislation and/or regulations safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, which include mention of protections from cyber attacks. One of the guiding principles of Law 1581 of 2012 on personal data protection is security whereby information "must be handled with technical, human and administrative procedures that are necessary to provide security to the records avoiding their adulteration, loss, or unauthorized or fraudulent consultation, use or access". Further, Article 17 on the responsibilities of data keepers includes "keeping the information under the security conditions necessary to prevent their adulteration, loss, or unauthorized or fraudulent consultation, use or access" and "informing the data protection authority when there are violations of security codes and there are risks in the administration of personal data". This authority is the Superintendency of Industry and Commerce, through a Delegation for Personal Data Protection. [1].

[1] Congress of Colombia. 2012. "Ley Estatutaria 1581 de 2012".

[https://www.defensoria.gov.co/public/Normograma%202013_html/Normas/Ley_1581_2012.pdf]. Accessed September 2020.

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 0

There is no evidence that the government has made a commitment to share surveillance data during a public health emergency with other countries in the region.

There are instances of routinary collaboration, such as the Latin American Antimicrobial Resistance Surveillance Network (ReLAVRA) with the support of the Pan American Health Organization (PAHO) promoting reliable, timely and reproducible microbiological data to improve patient care and strengthen surveillance. [1]. The Colombian Agricultural Institute (ICA) reports to the International Regional Organization of Agricultural Health (OIRSA) on outbreaks in the agricultural sector [2]. However, there is no evidence that such sharing is based on a public commitment to share surveillance data specifically during public health emergencies. Additionally, there is no evidence of surveillance data sharing during public health emergencies from the Ministry of Health or Colombia's National Institute of Health (INS). [3, 4]

- [1] PAHO. "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 September 2020.
- [2] OIRSA. 2017. "OIRSA recomienda activar vigilancia epidemiológica ante foco de fiebre aftosa en Colombia".
[<https://www.oirsa.org/noticia-detalle.aspx?id=3441>]. Accessed February 2019.
- [3] Ministry of Health and Welfare. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.
- [4] INS. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 1

There is a national system in place to provide support at the sub-national level to conduct contact tracing during an active public health emergency (Covid-19).

Through decree 1109 of 2020, the national government established the Testing, Tracking and Sustainable Selective Isolation Program (PRASS) for COVID-19 which includes a contact tracing component to be led mainly by territorial health authorities (departments and municipalities) and EPSs (health promotion entities). An initial pilot program was implemented in the municipalities of Cartagena, Quibdó and Palmira starting from June 2020. From September 2020, wider implementation has begun. The initiative includes a training process originally with 69 health entities on strategy, materials and norms. A training agenda has been announced by the Ministry of Health, covering all the departments (sub-national entities) of the country gradually. [1, 2, 3, 4]

- [1] Ministry of Health and Welfare. "Decreto 1109 de 2020".
[<https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%201109%20DEL%2010%20DE%20AGOSTO%20DE%202020.pdf>]. Accessed September 2020
- [2] Ministry of Health and Welfare. "PRASS, una estrategia en la nueva fase del covid-19 en el país".
[<https://www.minsalud.gov.co/Paginas/PRASS-una-estrategia-en-la-nueva-fase-del-covid-19-en-el-pais.aspx>]. Accessed September 2020.
- [3] Ministry of Health and Welfare. "Minsalud presentó agenda para la puesta en marcha del PRASS".

[<https://www.minsalud.gov.co/Paginas/Minsalud-presento-agenda-para-la-puesta-en-marcha-del-PRASS-.aspx>]. Accessed September 2020.

[4] Ministry of Health and Welfare. "Mediante decreto se reglamenta el programa PRASS".

[<https://www.minsalud.gov.co/Paginas/Mediante-decreto-se-reglamenta-el-programa-PRASS.aspx>]. Accessed September 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

Although medical attention is legally accessible to all individuals in the country in the event of any public health situation, there is insufficient evidence that Colombia provides economic support to enable infected people and their contacts to self-isolate or quarantine as recommended. The country has implemented economic support measures facing Covid-19 specifically, but these do not cover all segments of the population and are not designed to remain in place during future emergencies.

Through decree 1109 of 2020 the government has introduced clarifications on the entitlements to disability payments for those diagnosed with Covid-19. Article 8 states: Individuals in the contributory social security scheme that are diagnosed with Covid-19 can claim disability payments due to general illness or occupational disease, as appropriate, as recognized by the Health Promotion Entities (EPSs) or the Occupational Risk Administrators (ARLs) to guarantee their compliance with isolation. Those who are diagnosed with Covid-19 but in the opinion of a physician do not require disability status due to their physical conditions, should arrange for working at home during the mandatory isolation. Members of the subsidized health regime who are diagnosed with Covid-19, are entitled to payment of a Temporary Economic Compensation (Legislative Decree 538 of 2020), equal to seven days of the current legal minimum daily wage only once for each household, as long as the isolation is fulfilled. [1]

Furthermore, to guarantee continuation of healthcare services for those affected by unemployment, the government has introduced Decree 800 of 2020 by which workers in the contributory regime who lost their jobs can switch to the subsidized regime with fewer restrictions. This is intended for people who became unemployed during the emergency and who were earning up to a minimum monthly wage. [2] There is no change to health coverage, as theoretically, given any change of circumstances, EPSs are obliged to continue to provide health services due to health being defined as fundamental right by Law 1751 of 2015. [3, 4]

[1] Ministry of Health and Welfare. "Decreto 1109 de 2020".

[<https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%201109%20DEL%2010%20DE%20AGOSTO%20DE%202020.pdf>]. Accessed September 2020

[2] Ministry of Health and Welfare. "ABECé Decreto 800 del 2020".

[[minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/abece-decreto-800-de-2020.pdf](https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/abece-decreto-800-de-2020.pdf)]. Accessed September 2020

[3] Congress of Colombia. "Ley 1751 de 2015".

[https://www.minsalud.gov.co/Normatividad_Nuevo/Ley%201751%20de%202015.pdf]. Accessed September 2020.

[4] Constitutional Court. 2019. "E.P.S. NO PUEDEN SUSPENDER SERVICIOS DE SALUD A LOS AFILIADOS POR MORA EN APORTES". [<https://www.corteconstitucional.gov.co/noticia.php?-E.P.S.-NO-PUEDEN-SUSPENDER-SERVICIOS-DE-SALUD-A>]

LOS-AFILIADOS-POR-MORA-EN-APORTES-340]. Accessed September 2020.

2.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of reporting on contact tracing efforts. Through decree 1109 of August 2020 the national government established the Testing, Tracking and Sustainable Selective Isolation Program (PRASS) which includes a contact tracing component to be led mainly by territorial health authorities (departments and municipalities) and EPSs (health promotion entities). An initial pilot program was implemented in the municipalities of Cartagena, Quibdó and Palmira from June. From September 2020 wider implementation has begun. The initiative includes a training process originally with 69 health entities on strategy, materials and norms. A training agenda has been announced by the Ministry of Health, covering all the departments (sub-national entities) of the country gradually. No data on the results of the initiative has been published yet. [1, 2, 3, 4]

[1] Ministry of Health and Welfare. "Decreto 1109 de 2020".

[<https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%201109%20DEL%2010%20DE%20AGOSTO%20DE%202020.pdf>]. Accessed September 2020

[2] Ministry of Health and Welfare. "PRASS, una estrategia en la nueva fase del covid-19 en el país".

[<https://www.minsalud.gov.co/Paginas/PRASS-una-estrategia-en-la-nueva-fase-del-covid-19-en-el-pais.aspx>]. Accessed September 2020.

[3] Ministry of Health and Welfare. "Minsalud presentó agenda para la puesta en marcha del PRASS".

[<https://www.minsalud.gov.co/Paginas/Minsalud-presento-agenda-para-la-puesta-en-marcha-del-PRASS-.aspx>]. Accessed September 2020.

[4] Ministry of Health and Welfare. "Mediante decreto se reglamenta el programa PRASS".

[<https://www.minsalud.gov.co/Paginas/Mediante-decreto-se-reglamenta-el-programa-PRASS.aspx>]. Accessed September 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 1

There is evidence that Colombia has a joint plan or cooperative agreement between the public health system and border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of an active public health emergency, but only in response to an ongoing emergency.

Resolution 408 of 2020 established restrictions for entry to Colombia. Since March 16, entry of non-nationals and non-residents is restricted. All Colombian passengers and foreign residents will have mandatory preventive isolation for 14 days if admitted in the country. Self-isolation is to take place in the home of the national or resident, or in paid accommodation for non-residents at their own cost. [1] Resolution 380 of 2020 further assigns responsibilities for compliance with these measures, to the border authorities (Migración Colombia), among others. The border authority will be in charge of creating a registry of details from passengers arriving from restricted countries, including their chosen place for self-isolation. [2]

Additionally, the Ministry of Health has published "guidelines for screening travelers from areas with traffic new coronavirus (covid-19)" with further procedural details. It assigns Territorial Health Entities for the epidemiological monitoring of travellers, including the requirement to conduct contact tracing if they have been in contact with other people. [3] These measures are enforceable through existing regulations, such as Law 9 of 1979 stating that: regarding epidemiological surveillance and sanitation "all entities that participate in international traffic and activities in port areas must give support and lend their support to the Ministry of Health or its delegated entity for compliance with the provisions of this Law and its regulations." (Article 489). [4]

[1] Ministry of Health and Welfare. "Resolution 408 of 2020".

[https://www.minsalud.gov.co/Normatividad_Nuevo/Resoluci%C3%B3n%20No.%20408%20de%202020.pdf]. Accessed September 2020.

[2]. Ministry of Health and Welfare. "Resolution 380 of 2020".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/resolucion-380-de-2020.pdf>]. Accessed September 2020.

[3]. Ministry of Health and Welfare. 2020. "Orientaciones para el tamizaje de viajeros procedentes de zonas con circulación del nuevo coronavirus (Covid-19)". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/asif04-guia-tamizaje-poblacional-puntos-entrada-coronavirus.pdf>]. Accessed September 2020.

[4] Congress of Colombia. "Law 9 of 1979". [<https://www.funcionpublica.gov.co/eva/gestornormativo/norma.php?i=1177>]. Accessed October 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

Colombia's National Institute of Health (INS) hosts the country's Field Epidemiology Training Program (FETP) which is accredited by TEPHINET and is a member of Redsur. However, there is no evidence from the INS or the Ministry of Health that the government provides resources to send citizens to another country to participate in applied epidemiology training

programs [1,2,3, 4].

[1] INS. 2018. "PROGRAMA DE ENTRENAMIENTO EN EPIDEMIOLOGÍA DE CAMPO DEL INSTITUTO NACIONAL DE SALUD". [https://www.ins.gov.co/Noticias/Paginas/Programa_Entrenamiento_Epidemiolog%C3%ADa_Campo_INS.aspx]. Accessed September 2020.

[2] INS. 2016. "FETP". [https://www.ins.gov.co/Noticias/Paginas/FETP.aspx]. Accessed September 2020.

[3] TEPHINET. 2020. "Colombia Field Epidemiology Training Program". [https://www.tephinet.org/training-programs/colombia-field-epidemiology-training-program]. Accessed September 2020.

[3] REDSUR. 2018. "Programa de Entrenamiento en Epidemiología de Campo – Colombia". [http://redsur.org/fetp-colombia/]. Accessed January 2019.

[4] Ministry of Health. 2020 [https://www.minsalud.gov.co/Paginas/default.aspx]. Accessed September 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

Colombia has field epidemiology training programs in place that are explicitly inclusive of animal health professionals [1]. According to the TEPHINET and RedSur websites Colombia's FETP through the National Institute of Health explicitly includes zoonotic diseases and veterinary medicine [1, 2].

[1] TEPHINET. 2020. "Colombia Field Epidemiology Training Program". [https://www.tephinet.org/training-programs/colombia-field-epidemiology-training-program]. Accessed September 2020.

[2] REDSUR. 2018. "Programa de Entrenamiento en Epidemiología de Campo – Colombia". [http://redsur.org/fetp-colombia/]. Accessed September 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 1

There is a public health emergency mechanism but planning is only available for specific diseases. The Ministry of Health has response plans for specific diseases, for example influenza [1], dengue [2] and Zika [3]. The 2007 plan for prevention and mitigation of the impact of the avian influenza pandemic in Colombia, for example, addresses the background of avian influenza, the institutional setup needed for a response, objectives and an implementation plan. It aims to mitigate the repercussions on the health of the Colombian population, and the social and economic effects, derived from a public health emergency, such as a possible pandemic of influenza of avian origin, through the implementation of technical-administrative strategies on preparedness, prevention and early detection and increased response capacity of the entities of the national and territorial level. [4] Furthermore, on an operational level, Resolution 1220 of 2010 established the Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE), units of operational nature, responsible for coordinating and regulating access to emergency care and health services for the population in emergency situations or disasters, in each jurisdiction. The mechanism is intended to support Territorial Entities (sub-national health authorities) with coordination in the response to emergencies or disasters, standardization of processes and promotion of cooperation and articulation with the different actors of the General System of Social Security in Health and the National System of Prevention and Response to Disasters (SNPAD). Territorial Entities are in charge of forming their own CRUE and some parameters should be considered, such as having a minimum of human, technological and infrastructure resources. There is no national plan for their activities, but sub-national entities should have the capacity of CRUE ready to respond to any emergency. [5, 6]

[1] Ministry of Health. 2007. "Plan antipandemia de influenza".

[<https://www.minsalud.gov.co/salud/Paginas/PlanAntipandemiadeInfluenza.aspx>]. Accessed September 2020.

[2] Ministry of Health. 2019. "Plan de contingencia dengue".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/contingencia-dengue-2019-vuelta-colombia.pdf>]. Accessed September 2020.

[3] Ministry of Health. 2016. "Plan de respuesta frente a la fiebre por el virus del Zika".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/plan-respuesta-fiebre-zika-colombia.pdf>]. Accessed September 2020.

[4] National Institute of Health. 2007. "Plan for prevention and mitigation of the impact of the avian influenza pandemic in Colombia". [https://www.paho.org/col/index.php?option=com_docman&view=download&alias=178-plan-de-prevencion-y-mitigacion-del-impacto-de-la-pandemia-de-influenza&category_slug=ah1n1&Itemid=688]. Accessed October 2020.

[5] Ministry of Social Protection. "Resolución 1220 de 2010".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Resoluci%C3%B3n%201220%20DE%202010.pdf>]. Accessed September 2020.

[6] Ministry of Health. 2013 "Enlace Minsalud".

[https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/Enlace_MinSalud_25.pdf]. Accessed September 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 of an overarching plan to respond to public health emergencies. Resolution 1220 of 2010 established the Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE), units of operational nature, responsible for coordinating and regulating access to emergency care and health services for the population in emergency situations or disasters, in each jurisdiction. The mechanism is intended to support Territorial Entities (sub-national health authorities) with coordination in the response to emergencies or disasters, standardization of processes and promotion of cooperation and articulation with the different actors of the General System of Social Security in Health and the National System of Prevention and Response to Disasters (SNPAD). Territorial Entities are in charge of forming their own CRUE and some parameters should be considered, such as having a minimum of human, technological and infrastructure resources. There is no national plan for their activities, but sub-national entities should have the capacity of CRUE ready to respond to any emergency. [1, 2] The Ministry of Health has response plans only for specific diseases, for example influenza [3], dengue [4] and Zika [5].

[1] Ministry of Social Proteccion. "Resolución 1220 de 2010".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Resoluci%C3%B3n%201220%20DE%202010.pdf>]. Accessed September 2020.

[2] Ministry of Health. 2013 "Enlace Minsalud".

[https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/Enlace_MinSalud_25.pdf]. Accessed September 2020.

[3] Ministry of Health. 2007. "Plan antipandemia de influenza".

[<https://www.minsalud.gov.co/salud/Paginas/PlanAntipandemiadeInfluenza.aspx>]. Accessed September 2020.

[4] Ministry of Health. 2019. "Plan de contingencia dengue".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/contingencia-dengue-2019-vuelta-colombia.pdf>]. Accessed September 2020.

[5] Ministry of Health. 2016. "Plan de respuesta frente a la fiebre por el virus del Zika".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/plan-respuesta-fiebre-zika-colombia.pdf>]. Accessed September 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 of an overarching plan to respond to public health emergencies in Colombia. Resolution 1220 of 2010 established the Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE), units of operational nature, responsible for coordinating and regulating access to emergency care and health services for the population in emergency situations or disasters, in each jurisdiction. The mechanism is intended to support Territorial Entities (sub-national health authorities) with coordination in the response to emergencies or disasters, standardization of processes and promotion of cooperation and

articulation with the different actors of the General System of Social Security in Health and the National System of Prevention and Response to Disasters (SNPAD). Territorial Entities are in charge of forming their own CRUE and some parameters should be considered, such as having a minimum of human, technological and infrastructure resources. There is no national plan for their activities, but sub-national entities should have the capacity of CRUE ready to respond to any emergency. [1, 2] The Ministry of Health has response plans only for specific diseases, for example influenza [3], dengue [4] and Zika [5].

[1] Ministry of Social Protection. "Resolución 1220 de 2010".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Resoluci%C3%B3n%201220%20DE%202010.pdf>]. Accessed September 2020.

[2] Ministry of Health. 2013 "Enlace Minsalud".

[https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/Enlace_MinSalud_25.pdf]. Accessed September 2020.

[3] Ministry of Health. 2007. "Plan antipandemia de influenza".

[<https://www.minsalud.gov.co/salud/Paginas/PlanAntipandemiadeInfluenza.aspx>]. Accessed September 2020.

[4] Ministry of Health. 2019. "Plan de contingencia dengue".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/contingencia-dengue-2019-vuelta-colombia.pdf>]. Accessed September 2020.

[5] Ministry of Health. 2016. "Plan de respuesta frente a la fiebre por el virus del Zika".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/PP/ET/plan-respuesta-fiebre-zika-colombia.pdf>]. Accessed September 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 of a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. In June 2019, the National Association of Businesspeople of Colombia (ANDI), the National Unit for Disaster Risk Management (UNGRD), and the Association of Food Banks of Colombia (ABACO) signed a protocol on "coordination to strengthen the articulation of the private sector in response to emergencies and disasters in Colombia". In its development there was participation of around 30 companies represented by ANDI. It refers to collaboration in any type of emergency, including health needs, and it outlines the potential for participation of the private sector in different phases

of the emergency through donation of funds, goods/services or time. [1, 2] However, the protocol does not address specifically a coordinated response facing public health emergencies. There is no further information from the Ministry of Health. [3]

[1] UNGRD. 2019. "Fundación ANDI, UNGRD y ABACO suscriben protocolo de coordinación para fortalecer la articulación del sector privado en la respuesta a emergencias y desastres en Colombia".

[<http://portal.gestiondelriesgo.gov.co/Paginas/Noticias/2019/Fundacion-ANDI-UNGRD-y-ABACO-suscriben-protocolo-de-coordinacion-para-fortalecer-la-articulacion-del-sector-privado.aspx>]. Accessed September 2020.

[2] Trust Consultores. 2019. "Protocolo de coordinación del sector privado como parte del Sistema Nacional de Gestión del Riesgo de Desastres (SNGRD) en la respuesta a emergencias y desastres."

[<http://www.andi.com.co/Uploads/PROTOCOLO%20DE%20LECTURA.pdf>]. Accessed September 2020.

[3] Ministry of Health. [www.minsalud.gov.co]. Accessed October 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: 2

The country has policies in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic applicable to any disease.

Article 2.8.8.1.4.3 of Decree 780 of 2016 defines a number of non-pharmaceutical interventions the government can implement "in order to prevent or control the occurrence of an event or the existence of a situation that threatens the individual or collective health". In case of epidemics or national or international health emergency situations, urgent measures and other precautions can be adopted, based on scientific principles recommended by experts. Some of the measures described are: Isolation or hospitalization of sick people and / or animals; Quarantine of healthy people and / or animals; Vaccination or other prophylactic measures of people and animals; Control of infectious and toxic agents and materials, vectors and reservoirs; Vacancy or eviction of establishments or homes; Temporary partial or total closure of establishments; Partial or total suspension of work or services; Confiscation of objects or products; Destruction or denaturing of articles or products, if applicable; Freezing or temporary suspension of the sale or use of products and objects. [1] This provided a legal foundation for the first isolation measure taken during the Covid-19 pandemic (initially targeted at international travellers, in March 2020. [2] Multiple other measures have followed, such as those enforced through Decree 385 of March 2020 whereby the national government declared a sanitary emergency and implemented urgent precautionary measures to face Covid-19 including: cancellation of events, implementation of hygiene protocols in commercial venues, restrictions of entry to the country via ports, adoption of sanitary measures in workplaces, among others. [3]

[1] Ministry of Health and Welfare. "Decreto 780 de 2016".

[https://www.minsalud.gov.co/Normatividad_Nuevo/Decreto%200780%20de%202016.pdf]. Accessed September 2020.

[2]. Ministry of Health and Welfare. "Decreto 380 de 2020".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/resolucion-380-de-2020.pdf>]. Accessed September 2020.

[3] Ministry of Health and Welfare. "Decreto 385 de 2020".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/resolucion-385-de-2020.pdf>]. Accessed September 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 1

The country has activated an infectious disease control plan but it has not completed a national-level biological threat-focused exercise in the past year.

Through Decree 385 of March 2020 the national government declared a sanitary emergency allowing for the implementation of urgent precautionary measures to face Covid-19 including: cancellation of events, implementation of hygiene protocols in commercial venues, restrictions of entry to the country via ports, adoption of sanitary measures in workplaces, among others. The decree also calls for the activation of the "contingency plan to respond to the health emergency due to COVID-19". [1] This document was produced in March 2020 and includes a detailed plan of action for preparation, containment and mitigation phases. [2]

There is no evidence from the WHO, the Ministry of Health or the emergency authority that Colombia has conducted a national-level biological threat-focused exercise in the past year. [3, 4, 5]

[1] Ministry of Health and Welfare. "Decreto 385 de 2020".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/resolucion-385-de-2020.pdf>]. Accessed September 2020.

[2] Ministry of Health. 2020. "PLAN DE CONTINGENCIA PARA RESPONDER ANTE LA EMERGENCIA POR COVID-19".

[<https://www.minsalud.gov.co/salud/publica/PET/Documents/PLAN%20DE%20CONTINGENCIA%20PARA%20RESPONDER%20ANTE%20LA%20EMERGENCIA%20POR%20COVID-19.pdf>]. Accessed September 2020.

[3] Ministry of Health. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[4] WHO. 2020. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)".

[<https://extranet.who.int/sph/simulation-exercise->

[list?field_region_tid=All&tid=251&field_simulation_status_tid=All&field_simulation_type_tid=All&title=](https://extranet.who.int/sph/simulation-exercise-list?field_region_tid=All&tid=251&field_simulation_status_tid=All&field_simulation_type_tid=All&title=)]. Accessed September 2020.

[5] UNGRD. [<http://portal.gestiondelriesgo.gov.co>]. Accessed September 2020.

3.2.1b

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

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

Current Year Score: 0

There is no evidence that the country in the past year has identified a list of gaps and best practices in response to an infectious disease response or a biological-threat focused exercise. There is no evidence from the WHO, the Ministry of Health or the emergency authority that Colombia has conducted a a national-level biological threat-focused exercise in the past year or that an analysis of the Covid-19 response has taken place yet. [1, 2, 3]

[1] Ministry of Health. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[2] World Health Organization (WHO). 2020. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)". [https://extranet.who.int/sph/simulation-exercise-list?field_region_tid=All&tid=251&field_simulation_status_tid=All&field_simulation_type_tid=All&title=]. Accessed September 2020.

[3] The National Unit for Disaster Risk Management (UNGRD). [<http://portal.gestiondelriesgo.gov.co>]. Accessed September 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 from the World Health Organization, from the Ministry of Health or the emergency authority that Colombia has conducted a a national-level biological threat-focused exercise in the past year or that an analysis of the Covid-19 response has taken place yet. [1, 2, 3]

[1] Ministry of Health. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[2] World Health Organization. 2020. "Strategic Partnership for International Health Regulations (2005) and Health Security (SPH)". [https://extranet.who.int/sph/simulation-exercise-list?field_region_tid=All&tid=251&field_simulation_status_tid=All&field_simulation_type_tid=All&title=]. Accessed September 2020.

[3] National Unit for Disaster Risk Management (UNGRD). [<http://portal.gestiondelriesgo.gov.co>]. Accessed September 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

Colombia's National Institute of Health hosts the country's Emergency Operations Center for Public Health Events (COE-ESP), defined as the combination of facilities, equipment, protocols, procedures and communications that operate in a common organizational structure, with the responsibility of administration of resources for the fulfillment of objectives and strategies to identify, assess and modify a potential situation of public health emergency [1]. The COE-ESP was launched in 2017. This year 1,035 outbreak or emergency alarm situations were assessed. [2] Under the Ministry of Health, there is also the Office of Territorial Management, Emergencies, and Disasters (OGTED) which operates the National Center for Communications and Coordination for the Response to Health Sector Emergencies. The latter monitors, analyzes and disseminates information about emergencies and disasters to help health authorities of the Territorial Entities to make effective decisions. It also works in coordinating the Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE) existing in sub-national entities. [3]

[1] INS. 2019. "Lineamientos 2020".

[<https://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/Lineamientos%202020.pdf>]. Accessed September 2020

[2] INS. 2019. "Implementación del Centro de Operaciones de Emergencia en Salud pública COE-ESP del Instituto Nacional de Salud, Colombia". [<https://www.ins.gov.co/buscador-eventos/IQEN/IQEN%20vol%2023%202018%20num%203.pdf>]. Accessed September 2020.

[3] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>]. Accessed September 2020.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Emergency Operations Center for Public Health Events (COE-ESP) at the National Institute of Health has conducted drills every year or that such is required. In 2017 a drill of the response to an event of interest in public health (cholera) took place in Cartagena. [1] In 2018 two simulations and one drill took place with the aim of evaluating the institutional response capacity to public health emergencies (unspecified). [2] There is no evidence however of drills taking place every year. There is no evidence of drills by the National Center for Communications and Coordination for the Response to Health Sector Emergencies in the Ministry of Health. [3]

[1] INSformativo. 2017. "EL INS realizó simulacro para fortalecer Centro de Operaciones de Emergencias – COE- INS".

[<https://www.ins.gov.co/Comunicaciones/BoletinInsformativo/INSFORMATIVO%2014.pdf>]. Accessed September 2020.

[2] INS. 2019. "Seguimiento a la operación del Sistema de Alerta Temprana en Salud Pública del INS en Colombia, durante el

año 2018". [<https://www.ins.gov.co/buscador-eventos/BoletinEpidemiologico/2019%20Boletín%20epidemiológico%20semana%209.pdf>]. Accessed September 2020.
[3] Ministry of Health. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 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 evidence that the Emergency Operations Center for Public Health Events (COE-ESP) at the National Institute of health or the National Center for Communications and Coordination for the Response to Health Sector Emergencies in the Ministry of Health have activated a response within 120 minutes of the identification of the public health emergency/scenario. However, there is evidence that both have capability of response 24 hours, 7 days a week. [1, 2, 3, 4]

[1] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>]. Accessed September 2020.

[2] INS. 2019. "Seguimiento a la operación del Sistema de Alerta Temprana en Salud Pública del INS en Colombia, durante el año 2018". [<https://www.ins.gov.co/buscador-eventos/BoletinEpidemiologico/2019%20Boletín%20epidemiológico%20semana%209.pdf>]. Accessed September 2020.

[3] INS. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020.

[4] Ministry of Health. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 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: 1

Colombia's public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event. With support from Canada, an international cooperation project was developed in 2015 to help Colombia implement a National Response procedure for the scenario of a "bio-incident or bioterrorist attack". During the first stage of the project, a simulation was performed in which the roles and responsibilities of the response agencies were reviewed. [1] However, there is no mention of any standard operating procedures or MOUs between the public health and security

authorities to respond to a potential deliberate biological event from the Ministry of Health or the National Unit for Disaster Risk Management (UNGRD). [2, 3]

[1] Caracol. 2015. "Colombia se entrena para poder enfrentar un ataque bioterrorista".

[http://caracol.com.co/radio/2015/04/08/nacional/1428504780_709000.html]. Accessed September 2020.

[2] Ministry of Health and Welfare. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[3] The National Unit for Disaster Risk Management (UNGRD). [<http://portal.gestiondelriesgo.gov.co/>]. Accessed September 2020

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a detailed risk communication plan for use during a public health emergency. In February, at the start of the Covid-19 outbreak, the Ministry of Health published a document with recommendations for regional and national authorities to follow official information from National Institute of Health (INS) and the Ministry of Health, to communicate truthfully and timely to the population. [1] The website of the Ministry of Health hosts in its section on technical resources for Covid-19 guidelines from Pan American Health Organization (PAHO) "Guidelines for communicating about the disease by coronavirus 2019" [2] and "Recommendations for the first announcement of a case and sample press releases" [3] but there is no further evidence on to what extent they have been adopted. The "Contingency plan to respond to the emergency by Covid-19" by the Ministry of Health lists communication as a component of the action plan, it assigns a "communications group" to develop key outputs for the different phases (preparation, containment and mitigation) but it does not offer much detail. [4]

[1] Ministry of Health. "Circular 005 de 2020".

[<https://www.ins.gov.co/Noticias/Coronavirus/Circular%20No.005%20de%202020.pdf>]. Accessed September 2020.

[2] Pan American Health Organization. 2020. "Orientaciones para comunicar sobre la enfermedad por el coronavirus 2019".

[https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19_Comunicacion_de_Riesgos.%20Para%20lideres.pdf.pdf.pdf]. Accessed September 2020.

[3] Pan American Health Organization. 2020. "Recomendaciones para el primer anuncio de un caso y modelos de comunicados de prensa". [[https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19.%20Guia%20Primer%20Anuncio.%20Prensa.pdf.pdf%20\[1\].pdf](https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19.%20Guia%20Primer%20Anuncio.%20Prensa.pdf.pdf%20[1].pdf)]. Accessed September 2020.

[4] Ministry of Health. 2020. "PLAN DE CONTINGENCIA PARA RESPONDER ANTE LA EMERGENCIA POR COVID-19". Accessed September 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 insufficient evidence of a detailed risk communication plan for use during a public health emergency. During the Covid-19 outbreak, the Ministry of Health has published in February 2020 a document with recommendations for regional and national authorities to follow official information from National Institute of Health (INS) and the Ministry of Health, to communicate truthfully and timely to the population. [1] The website of the Ministry of Health hosts in its section on technical resources for Covid-19 guidelines from Pan American Health Organization (PAHO) "Guidelines for communicating about the disease by coronavirus 2019" [2] and "Recommendations for the first announcement of a case and sample press releases" [3] but there is no further evidence on to what extent they have been adopted. The "Contingency plan to respond to the emergency by Covid-19" by the Ministry of Health lists communication as a component of the action plan, it assigns a "communications group" to develop key outputs for the different phases (preparation, containment and mitigation) but it does not offer much detail. [4]

[1] Ministry of Health. "Circular 005 de 2020".

[<https://www.ins.gov.co/Noticias/Coronavirus/Circular%20No.005%20de%202020.pdf>]. Accessed September 2020.

[2] Pan American Health Organization. 2020. "Orientaciones para comunicar sobre la enfermedad por el coronavirus 2019".

[https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19_Comunicacion_de_Riesgos.%20Para%20lideres.pdf.pdf.pdf]. Accessed September 2020.

[3] Pan American Health Organization. 2020. "Recomendaciones para el primer anuncio de un caso y modelos de comunicados de prensa". [[https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19.%20Guia%20Primer%20Anuncio.%20Prensa.pdf.pdf%20\[1\].pdf](https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19.%20Guia%20Primer%20Anuncio.%20Prensa.pdf.pdf%20[1].pdf)]. Accessed September 2020.

[4] Ministry of Health. 2020. "PLAN DE CONTINGENCIA PARA RESPONDER ANTE LA EMERGENCIA POR COVID-19". Accessed September 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 of a detailed risk communication plan for use during a public health emergency. During the Covid-19 outbreak, the Ministry of Health has published in February 2020 a document with recommendations for regional and national authorities to follow official information from National Institute of Health (INS) and the Ministry of Health, to communicate truthfully and timely to the population. [1] The website of the Ministry of Health hosts in its section on technical resources for Covid-19 guidelines from Pan American Health Organization (PAHO) "Guidelines for communicating about the disease by coronavirus 2019" [2] and "Recommendations for the first announcement of a case and sample press releases" [3] but there is no further evidence on to what extent they have been adopted. The "Contingency plan to respond to the emergency by Covid-19" by the Ministry of Health lists communication as a component of the action plan, it assigns a

"communications group" to develop key outputs for the different phases (preparation, containment and mitigation) but it does not offer much detail. [4]

[1] Ministry of Health. "Circular 005 de 2020".

[<https://www.ins.gov.co/Noticias/Coronavirus/Circular%20No.005%20de%202020.pdf>]. Accessed September 2020.

[2] Pan American Health Organization. 2020. "Orientaciones para comunicar sobre la enfermedad por el coronavirus 2019".

[[https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-](https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19_Comunicacion_de_Riesgos.%20Para%20lideres.pdf.pdf.pdf)

19_Comunicacion_de_Riesgos.%20Para%20lideres.pdf.pdf.pdf]. Accessed September 2020.

[3] Pan American Health Organization. 2020. "Recomendaciones para el primer anuncio de un caso y modelos de comunicados de prensa".

[[https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-](https://www.minsalud.gov.co/salud/publica/PET/Documents/COVID-19.%20Guia%20Primer%20Anuncio.%20Prensa.pdf.pdf%20[1].pdf)

19.%20Guia%20Primer%20Anuncio.%20Prensa.pdf.pdf%20[1].pdf]. Accessed September 2020.

[4] Ministry of Health. 2020. "PLAN DE CONTINGENCIA PARA RESPONDER ANTE LA EMERGENCIA POR COVID-

19". [[https://www.minsalud.gov.co/salud/publica/PET/Documents/ABRIL%20PLAN%20DE%20CONTINGENCIA%20PARA%20RE-](https://www.minsalud.gov.co/salud/publica/PET/Documents/ABRIL%20PLAN%20DE%20CONTINGENCIA%20PARA%20RESPONDER%20ANTE%20LA%20EMERGENCIA%20POR%20COVID-19%20[1].pdf)

SPONDER%20ANTE%20LA%20EMERGENCIA%20POR%20COVID-19%20[1].pdf]. Accessed September 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: 2

The Ministry of Health has a website and social media platforms that are constantly updated. During the Covid-19 emergency the Ministry's website has enabled two home pages: one exclusively for updates on Covid-19 and a second one for the information traditionally hosted (institutional updates and news of other diseases). The Covid-19 site contains a rich amount of resources, including up-to-date epidemiology data, system capacity data, and the latest regulatory developments and guidelines. [1] The Ministry is active on social media, with profiles on Facebook [2], Twitter [3], Youtube [4], Instagram [5], which are constantly updated. During the Covid-19 emergency they frequently communicate facts and help to dispel rumours.

[1]. Ministry of Health. [<https://www.minsalud.gov.co/portada-covid-19.html>]. Accessed September 2020.

[2] Ministry of Health. [<https://www.facebook.com/MinSaludCol>]. Accessed September 2020.

[3] Ministry of Health Colombia. [<https://twitter.com/MinSaludCol>]. Accessed September 2020.

[4] Ministry of Health Colombia. [https://www.youtube.com/channel/UCnkrxrpSM_pWuKg8rWR_Oug]. Accessed September 2020.

[5] Ministry of Health Colombia [<https://www.instagram.com/minsaludcol/>]. Accessed September 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 in the past year, senior leaders have shared misinformation on infectious diseases. During the Covid-19 emergency, combatting fake news and misinformation has been one of the objectives of the government. The President has called in multiple occasions to avoid sharing false information. The exclusive website of the national government for the Covid-19 emergency further has a section aiming to dispel fake news, displaying news from social media that have been verified as fake and guiding people to report these to the authorities. [1] In February 2020, at the start of the Covid-19 outbreak, the Ministry of Health published a document with recommendations for regional and national authorities to follow official information from National Institute of Health (INS) and the Ministry of Health, to communicate truthfully and timely to the population. [2] Since July 2019, fighting fake news has also been a campaign of the Ministry of Technology and Communications. [3]

[1] Gobierno de Colombia. "El coronavirus en Colombia". [<https://coronaviruscolombia.gov.co/Covid19/noticias-falsas.html>]. Accessed September 2020.

[2] Ministry of Health. "Circular 005 de 2020". [<https://www.ins.gov.co/Noticias/Coronavirus/Circular%20No.005%20de%202020.pdf>]. Accessed September 2020.

[3] Ministry of Technology and Communications. 2019. "Aprenda a detectar y combatir las noticias falsas en internet". [<https://www.mintic.gov.co/portal/inicio/Sala-de-Prensa/Noticias/101931:Aprenda-a-detectar-y-combatir-las-noticias-falsas-en-internet>]. Accessed September 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: 65.01

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: 131.67

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: 2.0

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: 3.0

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: 0

On March 23 2020 the Ministry of Commerce announced new restrictions to exports of 24 types of goods needed to prevent and contain the coronavirus. Through Decree 462 of March 2020 the exports of items such as alcohol, soap, toilet paper, gloves for medical or care use, medicines for human use, disinfectants, cloths and wet towels, antibacterial gel, face masks and medical equipment of various types were restricted due to surging domestic demand, aiming to protect national stocks. The decree also restricts the export or re-export of goods such as rubber gloves of different kinds, protective glasses, electrocardiographs, vital signs monitors, neonatal cribs, ventilators, respiratory devices and respiratory protection masks, X-ray equipment and hospital beds and stretchers. The Decree notes that Article XI of the General Agreement on Tariffs and Trade (GATT) of the World Trade Organization (of which Colombia is a member) allows the exceptional application of temporary prohibitions or restrictions to exports in order to prevent or remedy the shortage of products, in this case essential for the health of the entire population in the Colombian national territory. However, there is no evidence of any specific international or bilateral support for this measure specifically. [1, 2]

[1] Mincomercio. 2020 "Por alta demanda, Gobierno Nacional restringe exportaciones de 24 bienes necesarios para prevenir y contener el coronavirus". [<https://www.mincit.gov.co/prensa/noticias/comercio/restringen-exportacion-bienes-para->

reducir-covid19]. Accessed September 2020.

[2] Ministry of Commerce, Industry and Tourism. "Decreto 462 of 2020". [<https://www.mincit.gov.co/prensa/medidas-para-mitigar-impacto-del-covid-19/documentos-covid-19/decreto-462-del-22-de-marzo-de-2020.aspx>]. Accessed September 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 evidence of restrictions on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak in the past year across key sources such as the Ministry of Commerce, the President's office, or the government's website on response to coronavirus [1, 2, 3]. In April the government announced a reduction to 0% of the import duty for corn, sorghum, soybeans, soybean cake, facilitating access to key agricultural inputs. [4] There is no evidence of such measures from the Ministries of Health, Agriculture or Foreign Affairs. [5, 6, 7].

[1] Mincomercio. [<https://www.mincit.gov.co/>]. Accessed September 2020.

[2] Presidencia. [<https://id.presidencia.gov.co/deinteres/index.html>]. Accessed September 2020.

[3] Gobierno de Colombia. "El coronavirus en Colombia". [<https://coronaviruscolombia.gov.co/Covid19/noticias-falsas.html>]. Accessed September 2020.

[4] Ministry of Commerce. "Decreto 523 de 2020".

[<https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%20523%20DEL%207%20DE%20ABRIL%20DE%202020.pdf>]. Accessed September 2020.

[5] Ministry of Health. [www.minsalud.gov.co]. Accessed October 2020.

[6] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed October 2020.

[7] Ministry of Foreign Affairs. [www.cancilleria.gov.co]. Accessed October 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

The country has banned the entry of travellers from any country, except nationals and Colombian residents. Resolution 408 of 2020 established restrictions for entry to Colombia. Since March 16, entry of non-nationals and non-residents is restricted. All Colombian passengers and foreign residents will have mandatory preventive isolation for 14 days if admitted in the country. Self-isolation is to take place in the home of the national or resident, or in paid accommodation for non-residents at their own cost. [1] Resolution 380 of 2020 further assigns responsibilities for compliance with these measures, to the border authorities (Migración Colombia), among others. The border authority will be in charge of creating a registry of details from passengers arriving from restricted countries, including their chosen place for self-isolation. [2] These measures follow the recommendations of international mechanisms. For example, Resolution 380 refers to the recommendation by the Director-General of the World Health Organization for countries to adapt their responses to the Covid-19 emergency, according to the

scenario in that each country is in, invoking the premature adoption of measures with an objective common to all countries: stop transmission and prevent the spread of the virus with focus on finding, testing, treating and isolating individual cases and following up on contacts. It also refers to the International Health Regulations stating that faced with evidence of imminent risk to public health, the State Party, in accordance with national legislation, may oblige the traveler to submit to sanitary measures that prevent or control spread of the disease, such as isolation, quarantine or submission of the traveler to public health observation, prior subscription of informed and explicit consent of the traveler or their parents or guardians. However, there are no specific international/bilateral agreements quoted in the implementation of these recent measures. [2]

[1] Ministry of Health and Welfare. "Resolution 408 of 2020".
[https://www.minsalud.gov.co/Normatividad_Nuevo/Resoluci%C3%B3n%20No.%20408%20de%202020.pdf]. Accessed September 2020.

[2]. Ministry of Health and Welfare. "Resolution 380 of 2020".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/resolucion-380-de-2020.pdf>]. Accessed September 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: 218.48

2018

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 133.09

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: 1

In 2018, the Ministry of Health published the National Policy of Human Talent in Health. The policy seeks to guide actions in the educational, labor and health sectors, proposing strategies in accordance with the needs of the population, the objectives and capacities of the Colombian health system. The document includes a section on "availability and characterization", offering key statistics on educational offer, services and labour market. The document then identifies key challenges, such as underprovision in rural areas, lack of staff with resolution capacity and employment conditions. Sections 6 addresses strategies and lines of action including areas such as management of information and knowledge, alignment of regulation and incentives, improvement of work conditions, training, among others. [1] In 2020 the Ministry of Health published "planning of human talent in health in the territory" with guidance to address planning and monitoring of human talent in health in the regions, as a continuation of the components proposed in the 2018 policy. [2]

[1] Ministry of Health. 2018. "Política Nacional de Talento Humano en Salud".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/TH/politica-nacional-talento-humano-salud.pdf>]. Accessed September 2020.

[2] Ministry of Health. 2020. "PLANIFICACIÓN DE TALENTO HUMANO EN SALUD EN EL TERRITORIO".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/TH/lineamientos-tecnicos-planificacion-thsenel-territorio.pdf>]. Accessed September 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 171

2018

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The country has capacity to isolate patients with highly communicable diseases, although limited. In February, at the start of the Covid-19 emergency it was reported that the country had 5,346 intensive care units (ICUs), of which less than 10% had

"biosafety conditions" and less than 2% had negative pressure. In August, the number of ICUs had increased to 9,000, but the current breakdown was not described. [1, 2, 3]

[1] El Tiempo. 2020. "Hospitales del país se alistan para ola de enfermos por covid-19".

[<https://www.eltiempo.com/salud/como-estan-los-hospitales-en-colombia-para-atender-emergencia-por-coronavirus-478060>]. Accessed September 2020.

[2] Dinero. 2020. "No es recomendable atender a pacientes con covid-19 en UCI: Amci".

[<https://www.dinero.com/pais/articulo/amci-no-recomienda-atender-a-pacientes-con-covid-19-en-las-uci/291579>]. Accessed September 2020.

[3] President's office. 2020. "En 150 días pasamos de 5.346 a 9 mil camas de cuidado intensivo, destaca el Ministro de Salud".

[<https://id.presidencia.gov.co/Paginas/prensa/2020/En-150-dias-pasamos-de-5346-a-9-mil-camas-de-cuidado-intensivo-destaca-el-Ministro-de-Salud-200803.aspx>]. Accessed September 2020

4.1.2c

Does the country meet one of the following criteria?

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

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence that Colombia has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years. There is no 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. Facing the Covid-19 emergency, the president's office announced in May 2020 the creation of 200 new intensive care beds in different regions of the county, as well as the preparation of numerous isolation rooms across regional and municipal hospitals. [1] In April 2020 the president announced the preparation of 400 rooms in the Hotel Tequendama in Bogota, to be used if necessary for the isolation and care of low-complexity Covid patients. [2, 3]. No evidence of a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years was found via the Ministry of Health or the emergency planning agency. [4]

[1] Presidencia. 2020. "Terminó la adecuación de la infraestructura para 200 camas UCI en hospitales intervenidos por la Superintendencia Nacional de Salud". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Termino-adequacion-infraestructura-200-camas-UCI-hospitales-intervenidos-por-Superintendencia-Salud-200505.aspx>]. Accessed March 2021.

[2] Presidencia. 2020. "Los colombianos han entendido bien la obligatoriedad del Aislamiento Preventivo Obligatorio, destaca el Ministro de Defensa". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Los-colombianos-han-entendido-bien-la-obligatoriedad-del-Aislamiento-Preventivo-Obligatorio-destaca-Ministro-Defensa-200402.aspx>]. Accessed March 2021.

[3] RCN. 2020. "Estas son las suites donde pasarán cuarentena los afectados por la COVID-19".

[<https://www.rcnradio.com/recomendado-del-editor/estas-son-las-suites-donde-pasaran-cuarentena-los-afectados-por-la-covid-19>]. Accessed March 2021.

[4] Ministry of Health. [minsalud.gov.co/]. Accessed March 2021.

[5] UNGRD. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed March 2021.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 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.

Colombia's government created the Colombia Compra Eficiente platform through Decree 4170 of 2011, which provides tools to facilitate transparent and efficient procurement for government organisations for all types of goods and services. [1]. It allows a person, on behalf of a state organisation, to obtain the public goods, works and services that enable the state organisation to fulfil its mission [2]. The procurement websites of the Ministry of Health, National Institute of Health and Colombian Agricultural Institute are all linked to the Electronic Public Procurement System (SECOPI) system of Colombia Compra Eficiente [3, 4, 5]. The SECOPI website features a search function to visualise ongoing purchasing processes. Numerous active processes for purchase of medical equipment and laboratory supplies are listed. [6]

[1] Colombia Compra Eficiente. 2019. "Colombia Compra Eficiente". [<https://www.colombiacompra.gov.co/colombia-compra/colombia-compra-eficiente>]. Accessed September 2020.

[2] Colombia Compra Eficiente. 2019. "Comprador Publico" [<https://www.colombiacompra.gov.co/compradores/comprador-publico>]. Accessed September 2020.

[3] Ministry of Health. 2020. "Contrataciones en curso". [<https://www.minsalud.gov.co/Ministerio/RCuentas/Paginas/contrataciones-en-curso.aspx>]. Accessed September 2020.

[4] National Institute of Health. 2020. "Procesos de contratación". [<https://www.ins.gov.co/Transparencia/Paginas/contratacion/procesos-de-contratacion.aspx>]. Accessed September 2020.

[5] Colombian Agricultural Institute. 2020. "Contratación". [<https://www.ica.gov.co/modelo-de-p-y-g/transparencia-participacion-y-servicio-al-ciudadano/contratacion>]. Accessed September 2020.

[6] SECOPI 1. "Búsqueda avanzada". [<https://www.contratos.gov.co/consultas/inicioConsulta.do>]. Accessed March 2021.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 2

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

The Ministry of Health is in charge of the Health Sector Reserve Center (CRSS), a national and sub-national facility, composed of a set of medicines, medical-surgical supplies, antidotes, equipment and other elements that support the network of health service providers for the timely care of the population affected by emergencies or disasters. Its objective is to improve the response of the hospital network to emergency or disaster situations and to guarantee better scenarios for the response and services for those affected in these events. It includes a National Reserve Center supplying medicines, supplies, equipment and radio communication elements to support Regional Reserve Centers and the network of services affected by any emergency or disaster. Regional Reserve Centers should permanently dispose of medicines, supplies, specialized equipment for the care of the population affected by emergencies and disasters in each of its jurisdictions. [1] Furthermore, facing the Covid-19 emergency, the government announced the creation of the "National Strategic Reserve", which in July stored 68 million units of health personnel protection items, such as surgical masks, gowns, caps, gloves and glasses. [2]

[1] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Este sábado, Presidente Duque inspeccionó la Reserva Estratégica Nacional para la atención del covid-19 en el país". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Este-sabado-Presidente-Duque-inspecciono-la-Reserva-Estrategica-Nacional-para-la-atencion-del-covid-19-en-el-pais-200711.aspx>]. Accessed September 2020.

4.2.2b

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

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

Current Year Score: 0

There is no evidence that the country has a stockpile of laboratory supplies. Limited information available on the Health Sector Reserve Center (CRSS) and the National Strategic Reserve does not mention laboratory supplies specifically. [1, 2] Furthermore, the annual guidelines document of the National Institute of Health refers to the need of territorial health agencies to ensure an adequate stocking of laboratory supplies, but it does not refer to a centralized stockpile. [3] There is no further evidence available from the Ministry of Defense or the National Unit for Disaster Risk Management. [4, 5]

[1] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Este sábado, Presidente Duque inspeccionó la Reserva Estratégica Nacional para la atención del covid-19 en el país". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Este-sabado-Presidente-Duque-inspecciono-la-Reserva-Estrategica-Nacional-para-la-atencion-del-covid-19-en-el-pais-200711.aspx>]. Accessed September 2020.

[3] INS. 2020. "Lineamientos Nacionales 2020".

[<https://www.ins.gov.co/Direcciones/Vigilancia/Lineamientosydocumentos/Lineamientos%202020.pdf>]. Accessed September 2020.

[4] Ministry of Defense. [www.mindefensa.gov.co]. Accessed October 2020.

[5] National Unit for Disaster Risk Management. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed September 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 the the country conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. Although the Ministry of Health specifies that the national and regional reserve centers should be permanently stocked, there is no information on a requirement for periodic reviews. [1] No further information is available from the Ministry of Defense or the Emergency planning agency. [2, 3]

[1] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>]. Accessed March 2021.

[2] Ministerio de Defensa. [mindefensa.gov.co]. Accessed March 2021.

[3] UNGRD. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed March 2021.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no evidence of permanent mechanisms to produce or procure medical supplies for national use during a public health emergency.

In March 2020, the National Government launched a campaign aimed at identifying small, medium and large companies that can produce or market personal protection items for the health sector such as gowns, hats, glasses, gloves and masks. Entrepreneurs were invited to register in a website of the Ministry of Commerce which provided technical requirements to produce and commercialize the items. This initiative is intended as a response to the Covid-19 emergency. [1] The government has also introduced measures to facilitate procurement of certain PPE elements and medical devices otherwise, such as the elimination of import duties, value added tax, and flexibilization of public procurement rules for international purchases. [2, 3] For example, through Decree 463 in March 2020 the government mandated the reduction to 0% the import duty for 53 products and elements of the health, hygiene and basic sanitation sectors (such as supplies, medicines, medical equipment, gloves and non-textile protective clothing, pumps for medical use, monitors, ozone therapy devices, reagents, laboratory tests, special packaging, chemicals, supplies for water treatment, detergents, containers and various cleaning, cleaning and personal care products, among others). This measure is specific to the Covid-19 emergency and the Decree is intended to be valid only during 6 months. [4] There is no further evidence from the Ministry of Defense or the National Unit for Disaster Risk Management in this regard. [5, 6]

- [1] Mincomercio. 2020. ""Empresarios por el empleo", convocatoria del Gobierno para producción de elementos de protección médica ante crisis sanitaria COVID-19". [<https://www.mincit.gov.co/prensa/noticias/industria/convocatoria-nacional-empresarios-por-el-empleo>]. Accessed September 2020.
- [2] Government of Colombia. 2020. "Gobierno reduce a 0% el arancel para la importación de 53 productos y elementos de los sectores de salud, higiene y saneamiento básico". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Gobierno-reduce-a-0-arancel-para-importacion-de-53-productos-elementos-de-sectores-salud-higiene-saneamiento-basico-200323.aspx>]. Accessed September 2020.
- [3] Government of Colombia. 2020. "Acciones tomadas por el Gobierno". [<https://coronaviruscolombia.gov.co/Covid19/acciones/acciones-de-salud.html>]. Accessed September 2020.
- [4] Ministry of Commerce. "Decree 463 of 2020". [<https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%20463%20DEL%2022%20DE%20MARZO%20DE%202020.pdf>]. Accessed October 2020.
- [5] Ministry of Defense. [www.mindefensa.gov.co]. Accessed October 2020.
- [6] National Unit for Disaster Risk Management. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed October 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 evidence of mechanisms to leverage local production or to procure laboratory supplies during an emergency from the Ministry of Health or the National Institute of Health, the institutions in charge of health emergency response. [1, 2] During the Covid-19 emergency the government announced the import of 500,000 reagents from Hong Kong to be distributed around the country, but there is no evidence that this was implemented as part of a plan. [3] There is no further information from the Ministry of Defense or the National Unit for Disaster Risk Management in this regard. [4, 5]

[1] Ministry of Health. [<https://covid19.minsalud.gov.co/>]. Accessed September 2020.

[2] INS. [ins.gov.co]. Accessed September 2020.

[3] Ministry of Health. 2020. "Comenzó la entrega a las regiones de 500 mil reactivos adquiridos por el Gobierno Nacional para pruebas de covid-19". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Comenzo-la-entrega-a-las-regiones-de-500-mil-reactivos-adquiridos-por-el-Gobierno-Nacional-para-pruebas-de-covid-19-200509.aspx>]. Accessed September 2020.

[4] Ministry of Defense. [www.mindefensa.gov.co]. Accessed October 2020.

[5] National Unit for Disaster Risk Management. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed October 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a plan for dispensing medical countermeasures (MCM) for national use during a public health emergency. However, during the Covid-19 emergency the country developed a testing strategy. Guidelines from the Ministry of Health describe the roll out of molecular RT-PCR, antigen testing and serological tests for SARS-CoV-2 (COVID-19) with indications of their objectives, and the groups they should be administered to, including health workers. [1] The Ministry of Health announced in August 2020 that the government has already developed a strategy for the administration of a potential coronavirus vaccine, which already includes details of priority populations. [2] There is no further evidence from the Ministry of Defense or the National Unit for Disaster Risk Management in this regard. [3, 4].

[1] Ministry of Health. 2020. "Guidelines, Orientations and Protocols to face COVID-19 in Colombia".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/lineamientos-orientaciones-protocolos-covid19-compressed.pdf>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Colombia ya cuenta con una estrategia de vacunación para el covid-19".

[<https://www.minsalud.gov.co/Paginas/Colombia-ya-cuenta-con-una-estrategia-de-vacunacion-para-el-covid-19-.aspx>]. Accessed September 2020.

[3] Ministry of Defense. [www.mindefensa.gov.co]. Accessed October 2020.

[4] National Unit for Disaster Risk Management. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed October 2020.

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

4.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a plan to receive health personnel from other countries to respond to a public health emergency from the Ministry of Health, Ministry of Defense or the Unit for Disaster Risk Management. [1, 2, 3] During the Covid-19 emergency Resolution 408 of 2020 established restrictions for entry to Colombia. Since March 16, entry of non-nationals and non-residents is restricted. There are exceptions for diplomatic staff and also for those issued a "courtesy visa" which can be given to someone conducting work of importance to the country. [4, 5]

[1] Ministry of Health. [<https://covid19.minsalud.gov.co>]. Accessed September 2020.

[2] Ministry of Defense. [<https://www.mindefensa.gov.co/irj/portal/Mindefensa>] Accessed September 2020.

[3] UNGRD. [<http://portal.gestiondelriesgo.gov.co/>]. Accessed September 2020.

[4] Ministry of Health and Welfare. "Resolution 408 of 2020".

[https://www.minsalud.gov.co/Normatividad_Nuevo/Resoluci%C3%B3n%20No.%20408%20de%202020.pdf]. Accessed September 2020.

[5] Asuntos Legales. 2017. "Nuevo régimen migratorio colombiano". [<https://www.asuntoslegales.com.co/consultorio/nuevo-regimen-migratorio-colombiano-2577044#:~:text=La%20visa%20tipo%20V%20de,internacional%20de%20cooperaci%C3%B3n%3B%20a%20quienes>].

Accessed September 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: 95.5

2016

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: 169.47

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a measure to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency from the Ministry of Health [1]. However, during the Covid-19 emergency the Ministry of Health has produced guidelines on occupational safety of health workers focused on prevention and reporting protocols in case of infection, which recognise the higher exposure of health workers. Also, the guidelines for testing procedures recognise health workers as a priority group. [2]

[1] Ministry of Health. [<https://covid19.minsalud.gov.co>]. Accessed September 2020.

[2] Ministry of Health. 2020. "Lineamientos, Orientaciones y Protocolos para enfrentar la COVID-19 en Colombia". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/lineamientos-orientaciones-protocolos-covid19-compressed.pdf>]. Accessed September 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency.

The National Center for Communications and Coordination for the Response to Health Sector Emergencies (in the Ministry of Health) monitors, analyzes and disseminates information about emergencies and disasters to help health authorities of the Territorial Entities to make effective decisions. It also works in coordinating the Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE) existing in sub-national entities. [1] Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE) are responsible for coordinating and regulating access to emergency care and health services for the population in emergency situations or disasters, in each jurisdiction. There is no evidence of two-way communication

through these platforms. [2, 3] There is no evidence of such system from the unit for disaster risk management. [4]

[1] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>].

Accessed September 2020.

[2] Ministry of Health. 2013 "Enlace Minsalud".

[https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/Enlace_MinSalud_25.pdf]. Accessed September

2020.

[3] Ministry of Social Proteccion. "Resolución 1220 de 2010".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Resoluci%C3%B3n%201220%20DE%202010.pdf>].

Accessed September 2020.

[4] The National Unit for Disaster Risk Management (UNGRD). [<http://portal.gestiondelriesgo.gov.co>]. Accessed September

2020.

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a system in place for public health officials and healthcare workers to communicate during a public health emergency, hence there is no evidence of inclusion of both private and public sectors.

The National Center for Communications and Coordination for the Response to Health Sector Emergencies (in the Ministry of Health) monitors, analyzes and disseminates information about emergencies and disasters to help health authorities of the Territorial Entities to make effective decisions. It also works in coordinating the Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE) existing in sub-national entities. [1] Regulatory Centers for Urgencies, Emergencies and Disasters (CRUE) are responsible for coordinating and regulating access to emergency care and health services for the population in emergency situations or disasters, in each jurisdiction. There is no evidence of two-way communication through these platforms. [2, 3] There is no evidence of such system from the unit for disaster risk management. [4]

[1] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud".

[<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>].

Accessed September 2020.

[2] Ministry of Health. 2013 "Enlace Minsalud".

[https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/COM/Enlace_MinSalud_25.pdf]. Accessed September

2020.

[3] Ministry of Social Proteccion. "Resolución 1220 de 2010".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/Resoluci%C3%B3n%201220%20DE%202010.pdf>].

Accessed September 2020.

[4] The National Unit for Disaster Risk Management (UNGRD). [<http://portal.gestiondelriesgo.gov.co>]. Accessed September

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: 1

There is 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. Since 2012 the National Institute of Health initiated the surveillance strategy for HCAI. Since 2018 a notification system has been implemented throughout the national territory, using the SIVIGILA platform which is updated on a weekly basis. [1]

[1] INS. 2019 (semana 25). "Boletín Epidemiológico Semanal". [<https://www.ins.gov.co/buscador-eventos/BoletinEpidemiologico/2019%20Boletín%20epidemiológico%20semana%2025.pdf>]. Accessed September 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 1

According to Article 20 of Resolution number 8430 of 1993, all clinical trials require an ethical review. Specifically the article states that clinical trials may only be carried out by institutions with a Research Ethics Committee and with prior authorization of the Ministry of Health and Welfare to proceed. [1].

[1] Ministry of Health. 1993. "RESOLUCION NUMERO 8430 DE 1993". [<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 2020.

4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of an expedited process for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics. Article 59 of the Resolution number 8430 of 1993, which regulates health research in the country, details special measures for an expedited process of approving the use of unregistered medical countermeasures (or the use of a medicine in a different manner as originally intended) in cases of emergency, requiring the approval of the ethics committee of the research institution and consent by the subject taking the medication. However, there is no specific mention for an expedited process to approve clinical trials [1].

[1] Ministry of Health. 1993. "RESOLUCION NUMERO 8430 DE 1993".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 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

The National Institute of National Drug and Food Surveillance (INVIMA) is responsible for issuing and renewing the sanitary registration for the production, export, processing, packaging, sale and marketing of nationally manufactured drugs complying with pharmacological standards. The sanitary registry is a public document that is issued after a procedure aimed at verifying compliance with the technical legal requirements established in the existing regulations. Pharmacological standards are the set of conditions and restrictions that INVIMA establishes and updates. They are a requirement to consider the therapeutic use of a drug as safe, effective and in accordance with a favorable risk/benefit balance in circumstances of rational use. [1] The process entails a Pharmacological Evaluation, which is carried out by the Invima Review Commission and a Pharmaceutical and Legal Evaluation, which is carried out directly by the Directorate of Medicines and Biological Products of INVIMA. [2]

[1] Colombia Agil. "Registros sanitarios de medicamentos nacionales".
[<http://www.colombiaagil.gov.co/tramites/intervenciones/registros-sanitarios-de-medicamentos-nacionales#:~:text=El%20registro%20sanitario%20es%20un,jur%C3%ADdica%20para%20importar%20los%20medicamentos.>]. Accessed September 2020.

[2] Legal Affairs. 2019. "¿Registro sanitario de medicamentos en 180 días?".
[<https://www.asuntoslegales.com.co/analisis/viviana-aguirre-vargas-2943274/registro-sanitario-de-medicamentos-en-180-dias-2943273>]. Accessed September 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: 1

Article 59 of the Resolution number 8430 of 1993, which regulates health research in the country, details special measures for an expedited process of approving the use unregistered medical countermeasures (or the use of a medicine in a different manner as originally intended) in cases of emergency, requiring the approval of the ethics committee of the research institution and consent by the subject taking the medication. This applies to medications and biological products for human for which there is no previous experience in the country, are not contemplated in the Pharmacological Norms in the Ministry of Health and therefore, are not distributed commercially, as well as medicines registered and approved for sale, when use in different modalities, indications, doses or routes of administration other than those established is explored including its use in combinations. [1]

[1] Ministry of Health.1993. "RESOLUCION NUMERO 8430 DE 1993".

[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/DE/DIJ/RESOLUCION-8430-DE-1993.PDF>]. Accessed September 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

The country's National Plan for Disaster Risk Management mentions pandemics only briefly. Specifically, it assigns to the Ministry of Health the responsibilities of: formulation and implementation of the Disaster Risk Management Intersectoral Plan

for events with pandemic potential; the creation of public health action plans to address events with pandemic potential. [1] In 2007 the Ministry of Health - National Institute of Health published the "plan for the prevention and mitigation of the impact of the avian influenza pandemic in Colombia" intended to mitigate the repercussions of a public health emergency, such as a possible pandemic of influenza of avian origin, through the implementation of preparedness, prevention and early detection strategies as well as increased response capacity of the entities of the national and territorial levels. However, there is no evidence that this document is integrated with the national strategies for disaster risk management or that it has been updated. [2, 3] The Ministry of Health lists associated documents but access to them is restricted. [4]

[1] UNGRD. 2016. "Plan Nacional de Gestión del Riesgo de Desastres". [<http://portal.gestiondelriesgo.gov.co/Paginas/Plan-Nacional-de-Gestion-del-Riesgo.aspx>]. Accessed September 2020.

[2] Ministry of Health. 2007. "Plan de prevención y mitigación del impacto de la pandemia de la influenza aviar en Colombia". [https://www.paho.org/col/index.php?option=com_docman&view=download&alias=178-plan-de-prevencion-y-mitigacion-del-impacto-de-la-pandemia-de-influenza&category_slug=ah1n1&Itemid=688]. Accessed September 2020.

[3] Ministry of Health. 2020. "Estrategia Nacional de Respuesta a Emergencias en Salud". [<https://www.minsalud.gov.co/salud/PServicios/Paginas/estrategia-nacional-de-respuesta-a-emergencias-en-salud.aspx>]. Accessed September 2020.

[4] Ministry of Health. 2020. "Plan Antipandemia de Influenza". [<https://www.minsalud.gov.co/salud/Paginas/PlanAntipandemiadeInfluenza.aspx>]. Accessed September 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

In 2014, Colombia and Ecuador established a joint Protocol for Health Emergencies. Specifically, the Ministry of Health and Welfare of Colombia and the Ministry of Public Health of Ecuador have worked together to analyse and operationalize strategies for the provision of health services in the Colombian-Ecuadorian border area. The document specifies the roles and functions of each health provider under emergency situations as well as the guidelines to care for a foreign patient in the bi-national zone of Colombia - Ecuador [1]. Furthermore, the two countries produced a "five-year health plan for the border zone Ecuador - Colombia" which includes areas of collaboration in epidemiology surveillance and response to public health emergencies. [4] There is evidence implementation of this collaboration: in 2019 the presidents of the two countries gathered to review and update new collaboration commitments. They agreed on the creation of a technical committee in charge of emergency and health aspects. [5]

[1] Ministry of Health and Welfare. 2014. "PROTOCOLO DE ATENCIÓN EN SALUD URGENCIAS/EMERGENCIAS". [<http://idsn.gov.co/site/web2/images/documentos/aseguramiento/2014/protaurgencias.docx>]. Accessed September 2020.

[2] Ministries of Health (Colombia and Ecuador). 2014. "Plan quinquenal de salud para la zona de frontera Ecuador - Colombia". [http://www.sbi-ecuador-colombia.info/documentos/Plan_Quinquenal_Salud_Ecuador_Colombia.pdf]. Accessed September 2020.

[3] Ministry of Foreign Relations. "DECLARACIÓN PRESIDENCIAL DE CALI 2019".

[https://www.cancilleria.gov.co/sites/default/files/FOTOS2019/viii_gabinete_binacional_colombia_ecuador_declaracion_final.pdf]. Accessed September 2020.

5.2.1b

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

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

Current Year Score: 2

Colombia is a member of the Pan American Foot-and-Mouth Disease (FMD) and Veterinary Public Health Center (PANAFTOSA), an organization hosted by the Pan-American Health Organization (PAHO), which has the mission of providing technical cooperation to the countries of the region in the organization, development and strengthening of national FMD prevention, control, and eradication programs. Originally dedicated exclusively to FMD, it now also provides technical cooperation in zoonoses and food safety. [1] There is evidence of implementation as periodically the initiative publishes activity reports. [2] During an outbreak of FMD in the country in 2017, PANAFTOSA delegates visited and provided technical assistance to Colombia. [3]

[1] Pan American Health Organization. 2020 "Centro Panamericano de Fiebre Aftosa y Salud Pública Veterinaria - PANAFTOSA". [<https://www.paho.org/es/centro-panamericano-fiebre-aftosa-salud-publica-veterinaria-panaftosa>]. Accessed September 2020.

[2] Pan American Health Organization. 2020. "Pan American Foot and Mouth Disease Center (PANAFTOSA)". [<https://iris.paho.org/handle/10665.2/2973>]. Accessed September 2020.

[3] Colombian Agricultural Institute. 2017. "Organismos internacionales respaldan gestión del ICA para erradicar el brote de fiebre aftosa presentado en el país". [<https://www.ica.gov.co/noticias/pecuaria/organismos-internacionales-respaldan-gestion-del-i.aspx>]. Accessed September 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: 1

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: 1

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: 1

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years from key institutions such as the Ministry of Health, the President's Office, the National Institute of Health or the Ministry of Agriculture. [1, 2, 3, 4]

[1] Ministry of Health. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[2] President's Office. [<https://id.presidencia.gov.co/deinteres/index.html>]. Accessed September 2020.

[3] National Institute of Health (INS). [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020.

[4] Ministry of Agriculture. [<https://www.minagricultura.gov.co/paginas/default.aspx>]. Accessed September 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no public evidence of a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency. However, during the Covid-19 emergency the government created the Emergency Mitigation Fund (FOME) through Decree 444 of March 2020. FOME resources may be used to ward off the crisis or prevent its effects from spreading throughout the national territory and for these purposes: to attend to the additional needs for resources that are generated by the entities that are part of the General Budget of the Nation; to pay the costs generated by the execution of the instruments and / or contracts in the fulfillment of the FOME's purpose; to carry out operations to support temporary liquidity in the financial sector through temporary transfer of securities, term deposit, among others; to invest in equity or debt instruments issued by private, public or mixed companies that carry out activities of national interest; to directly provide financing to private, public or mixed companies that carry out activities of national interest; to provide liquidity to the nation, only in those events in which the effects of the emergency exceed ordinary sources of liquidity. The fund has been established to address the sanitary emergency of Covid-19 and Decree 444 states that it can be dissolved once its purpose has been met. [1, 2] Colombia is not listed as an eligible country either for IDA or for Pandemic Financial Facility of the World Bank. [3, 4]

[1] President's Office. 2020. "Gobierno Nacional crea el Fondo de Mitigación de Emergencias para atender necesidades del sector salud". [<https://id.presidencia.gov.co/Paginas/prensa/2020/Gobierno-Nacional-crea-el-Fondo-de-Mitigacion-de-Emergencias-para-atender-necesidades-del-sector-salud-200323.aspx#:~:text=Bogot%C3%A1%2C%2023%20de%20marzo%20de,1.>]. Accessed September 2020

[2] Ministry of Finance and Public Credit. "Decreto 444 de 2020".

[<https://dapre.presidencia.gov.co/normativa/normativa/DECRETO%20444%20DEL%2021%20DE%20MARZO%20DE%202020.pdf>]. Accessed September 2020.

[3] World Bank. "Borrowing Countries". [<https://ida.worldbank.org/about/borrowing-countries>]. Accessed September 2020.

[4] World Bank. 2017. "Pandemic Emergency Financing Facility (PEF)".

[<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed September 2020.

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

5.5.4a

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

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

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

Current Year Score: 0

There is no evidence that senior leaders have made a public commitment to support other countries to improve capacity or to improve its own domestic capacity to address epidemic threats in the past three years. Colombia's president has made several public commitments to improve its own domestic health system by expanding financing in the past three years. In 2018, the President announced a Plan that dedicates 488 billion Pesos to strengthening the health system at several levels [1]. However, this is not related to epidemic threats. There is no further evidence from the Ministry of Health and Welfare, the National Institute of Health, the Ministry of Foreign Affairs, Pan American Health Organization, or the World Health Organization [3,4,5].

[1] Ministry of Health and Welfare. 2018. "Presidente Duque anunció plan de choque para la salud por \$488 mil millones". [<https://www.minsalud.gov.co/Paginas/Presidente-Duque-anuncio-plan-de-choque-para-la-salud-por-488-mil-millones.aspx>]. Accessed September 2020.

[2] Ministry of Health and Welfare. 2020. [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[3] National Institute of Health. 2020. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020.

[4] Ministry of Foreign Affairs. 2020. [<https://www.cancilleria.gov.co/>]. Accessed September 2020.

[5] Pan American Health Organization. "PAHO/WHO Media Center: news, features, multimedia".

[https://www.paho.org/hq/index.php?option=com_content&view=article&id=964:media-center&Itemid=958&lang=en]. Accessed September 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 Colombia has received donor funding to improve domestic capacity to address epidemic threats in the last three years, and that it has supported other countries.

The Global Health Security Funding Tracker notes that Colombia has received funding from multiple donors to enhance its capacity to respond to diseases such as Zika, Tuberculosis and Malaria. One example is cooperation from Canada to prevent Zika disease with novel vector control approaches between 2017 and 2020. Total funding was CA\$ 999,100 split between Colombia, Brazil and Mexico. [1, 2] During the Covid-19 emergency Colombia has secured funding from multiple international donors, such as IMF, World Bank and Inter-American Development Bank worth US\$2,400m intended to finance response

policies to the pandemic. [2] There is no further evidence from the Ministries of Health or Foreign Affairs, the United Nations or the World Health Organization. [3, 4, 5, 6]. In September 2019 Colombia donated US\$100,000 to Honduras to support its health system in the response to Dengue. [7]

[1] Global Health Security Funding Tracker. [<https://tracking.ghscosting.org/explore/map>]. Accessed September 2020.

[2] International Development Research Center. "Preventing Zika disease with novel vector control approaches".

[<https://www.idrc.ca/en/project/preventing-zika-disease-novel-vector-control-approaches>]. Accessed October 2020.

[3] Dinero. 2020. "Colombia recibirá créditos por US\$2.400 millones por coronavirus".

[<https://www.dinero.com/economia/articulo/cuanto-ha-recibido-colombia-para-luchar-contr-el-coronavirus-en-el-pais/287782>]. Accessed September 2020.

[4] Ministry of Health. [www.minsalud.gov.co]. Accessed October 2020.

[5] Ministry of Foreign Affairs. [www.cancilleria.gov.co]. Accessed October 2020.

[6] United Nations. [un.org]. Accessed October 2020.

[7] World Health Organization. [who.int]. Accessed October 2020.

[8] La Prensa. 2019. "Honduras recibe de Colombia 100,00 dolares para combatir el dengue".

[<https://www.laprensa.hn/honduras/1322112-410/honduras-colombia-dengue-salud-muertes>]. Accessed October 2020.

5.5.4c

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

Yes = 1 , No = 0

Current Year Score: 0

2021

Economist Impact analyst qualitative assessment based on official national sources, which vary by country

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

5.6.1 Commitment to sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) in both emergency and nonemergency research

5.6.1a

Is there a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a general 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. However, there are examples of sharing and collaboration for specific diseases. The "Guidelines for preparedness and response to the eventual introduction of cases of Ebola virus disease (EVD) in Colombia" prepared by the Ministry of Health and the INS indicates that samples of Ebola are inactivated by the laboratory at the INS and sent to a

CDC center in Atlanta, United States, for testing. [1] Additionally, Colombia has committed to sharing surveillance data with regional partners via membership in the SIREVA II network which works to monitor pneumonia and bacterial meningities. [2] There is no further information from the Ministries of Health or Agriculture, or the Ministry of Science and Technology. [3, 4, 5]

[1] Ministry of Health. 2019. "Lineamientos para la preparación y respuesta ante la eventual introducción de casos de enfermedad por el virus del ébola (EVE) en Colombia".
[<https://www.minsalud.gov.co/sites/rid/Lists/BibliotecaDigital/RIDE/VS/ED/VSP/Lineamientos%20EVE.pdf>]. Accessed September 2020.

[2] Pan American Health Organization. "SIREVA II".
[https://www.paho.org/hq/index.php?option=com_content&view=article&id=5536:2011-sireva-ii&Itemid=3966&lang=fr]. Accessed October 2020.

[3] Ministry of Health. [www.minsalud.gov.co]. Accessed October 2020.

[4] Ministry of Agriculture. [www.minagricultura.gov.co]. Accessed October 2020.

[5] Ministry of Science and Technology. [www.minciencias.gov.co]. Accessed October 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 via the Ministry of Health and Welfare, the National Institute of Health, Colombia's top news sources such as El Tiempo, or the World Health Organization or Pan American Health Organization's news sites that the Colombia has not shared samples in accordance with the PIP framework in the past two years [1,2,3,4].

[1] Ministry of Health and Welfare. 2020 [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[2] National Institute of Health. 2020. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020

[3] El Tiempo. 2020. [<https://www.eltiempo.com/colombia>]. Accessed September 2020

[4] PAHO. "PAHO/WHO Media Center: news, features, multimedia".
[https://www.paho.org/hq/index.php?option=com_content&view=article&id=964:media-center&Itemid=958&lang=en]. Accessed September 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 via the Ministry of Health and Welfare, the National Institute of Health, Colombia's top news sources such as El Tiempo, or the World Health Organization or Pan-America Health Organization's news sites that Colombia has not shared pandemic pathogen samples during an outbreak in the past two years [1,2,3,4].

[1] Ministry of Health and Welfare. 2020 [<https://www.minsalud.gov.co/Paginas/default.aspx>]. Accessed September 2020.

[2] National Institute of Health. 2020. [<https://www.ins.gov.co/Paginas/Inicio.aspx>]. Accessed September 2020

[3] El Tiempo. 2020. [<https://www.eltiempo.com/colombia>]. Accessed September 2020

[4] PAHO. "PAHO/WHO Media Center: news, features, multimedia".

[https://www.paho.org/hq/index.php?option=com_content&view=article&id=964:media-center&Itemid=958&lang=en]. Accessed September 2020

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

Policy formation (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 39

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 2

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: 4

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

Current Year Score: 2

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

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

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

Current Year Score: 2

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: 1

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: 2

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: 2

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

Adult literacy rate, population 15+ years, both sexes (%)

Input number

Current Year Score: 95.09

2018

United Nations Development Programme (UNDP); United Nations Educational, Scientific and Cultural Organization (UNESCO);
The Economist Intelligence Unit

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.59

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: 1.7

2018

World Bank; Economist Impact

6.2.3b

Share of employment in the informal sector

Greater than 50% = 2, Between 25-50% = 1, Less than 25% = 0

Current Year Score: 2

For 2019 ILOSTAT reported an informality rate of 62.1% of all employment (harmonized). [1]

[1] ILOSTAT. 2020. "Informal employment and informal sector as a percent of employment by sex - Harmonized".
[https://www.ilo.org/shinyapps/bulkexplorer19/?lang=en&segment=indicator&id=IFL_4IEM_SEX_ECO_IFL_RT_A]. Accessed
September 2020

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 1

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 1

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

Current Year Score: 2

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.51

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: 2

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 3

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 81.1

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: -1.49

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: 1

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: 77.11

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: 326

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 8.77

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 7.9

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 22.3

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: 97.3

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 89.63

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: 827.44

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