

Bolivia

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 0

There is no public evidence in the Ministry of Health (Ministerio de Salud) or Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) that Bolivia has a national AMR plan for the surveillance, detection and reporting of AMR pathogens, although there is evidence that the country has been formulating a national strategy since 2017. [1,2,3] The government has received assistance from the Food and Agriculture Organisation of the United Nations for its formulation. [4] The WHO library of national action plans for AMR does not have a plan for Bolivia, and the country does not appear in the list. [5] However, Bolivia is part of the South American Infectious Disease Initiative (SAIDI) alongside the Regional Bureau for Latin America and the Caribbean of the United States Agency for International Development (USAID/LAC/SD) with the collaboration of various international partners, which includes the development of a strategy among its main goals. [6] In 2016 the government created the State Agency for Medication and Health Technology (Agencia Estatal de Medicamentos y Tecnologías de Salud, Agemed), a state agency to enforce pharmaceutical vigilance and follow up on the correct use of pharmaceuticals, including antibiotics. [7]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Salud. 2017. "Ministry of Health Plans National Plan to Counter Antimicrobial Resistance (Ministerio de Salud Proyecto Plan Nacional de Contencion a Resistencia a los Antimicrobianos)". [<https://www.minsalud.gob.bo/2289-ministerio-de-salud-proyecto-plan-nacional-de-contencion-a-resistencia-a-los-antimicrobianos>]. Accessed December 2020.

[4] Food and Agriculture Organisation of the United Nations. 2017. "Antimicrobial Resistance - Intervention of the FAO in the Region (Resistencia a los Antimicrobianos -Intervencion de FAO en la Region)". [<https://www.paho.org/hq/dmdocuments/2017/2017-cha-relavra-del-barrio-1-b.pdf>]. Accessed December 2020.

[5] World Health Organisation. "Library of National Action Plans". 2018. [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed December 2020.

[6] Organizacion Panamericana de Salud. 2009. "Antimicrobial Resistance: Profile of Bolivia (Resistencia Antimicrobiana: Perfil de Bolivia)". [https://www.paho.org/hq/index.php?option=com_content&view=article&id=1338:2009-perfil-pais-bolivia-resistencia-antimicrobiana&Itemid=40288&lang=en]. Accessed December 2020.

[7] Bolivia.com. 2016. "State Medicines Agency will regulate the use of antibiotics (Agencia Estatal de Medicamentos regular el uso de antibiûticos)". [<https://www.bolivia.com/actualidad/nacionales/sdi/144077/agencia-estatal-de-medicamentos-regulara-el-uso-de-antibioticos>]. Accessed December 2020.

1.1.1b

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

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

Current Year Score: 1

There is evidence that the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA) is conducting surveillance for some, if not all, of the 7+1 AMR pathogens. Bolivia is a member of the Pan American Health Organisation (PAHO) Latin American Surveillance Network on Antimicrobial Resistance (Red Latinoamericana de Vigilancia de la Resistencia a los Antimicrobianos; ReLAVRA) network, which collects and publicly shares surveillance data from countries on AMR pathogens. According to the 2014 ReLAVRA "Annual Report on the Monitoring/Vigilance Network on Antibiotic Resistance (Informe Annual de la Red de Monitoreo/Vigilancia de la Resistencia a los Antibioticos)", the most recent publicly available report with specific data for Bolivia, the country collects surveillance data on AMR pathogens through a network of 30 sentinel site laboratories throughout the country, and is supported by a network of 94 bacteriology laboratories. The report confirms that Bolivia conducts AMR surveillance for Salmonella spp., S.aureus, Shigella spp., E.coli, S.pneumoniae and K.pneumoniae. [1]

[1] Pan American Health Organisation. 2014. "Annual Report on the Monitoring/Vigilance Network on Antibiotic Resistance (Informe Annual de la Red de Monitoreo/Vigilancia de la Resistencia a los Antibioticos)" [<https://www.paho.org/hq/dmdocuments/2017/2014-cha-informe-anual-relavra.pdf>]. Accessed December 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Bolivia conducts detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms. There is no public evidence in the Ministry of Health (Ministerio de Salud) or Ministry of Environment and Water (Ministerio de Medio Ambiente y Agua) that Bolivia has a national AMR plan for the surveillance, detection and reporting of AMR pathogens, although there is evidence that the country has been formulating a national strategy since 2017. [1,2,3]

[1] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Salud. 2017. "Ministry of Health Plans National Plan to Counter Antimicrobial Resistance (Ministerio de Salud Proyecto Plan Nacional de Contencion a Resistencia a los Antimicrobianos)". [<https://www.minsalud.gob.bo/2289-ministerio-de-salud-proyecto-plan-nacional-de-contencion-a-resistencia-a-los-antimicrobianos>]. Accessed December 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 evidence of national legislation or regulation in place requiring prescriptions for antibiotic use for humans, however, in practice there are difficulties to enforce the legislation. The State Medication and Technology Agency (Agencia Estatal de Medicamentos y Tecnologías de Salud; AGEMED) within the Ministry of Health (Ministerio de Salud), was created in 2016 to enforce pharmaceutical vigilance and follow up on the correct use of pharmaceuticals, including antibiotics. In February 2017 AGEMED stressed the need for all medical doctors to uphold the regulation and use prescriptions for antimicrobial medication. [1,2] Law No. 1737 of 1996, the Medicines Law, indicates that only medical doctors and orthodontists may issue prescriptions for medications in general, and expressly prohibits the sale of medication without prescriptions. [3,4] The regulation under Law No. 1737, Supreme Decree No. 25235 (1998), includes narcotics and psychotropic medications among those requiring the use of prescriptions, but does not mention antimicrobials specifically. [4,5] The Pan American Health Organisation's Antimicrobial Resistance Country Profile for Bolivia stresses the need to improve controls of the sale of antimicrobials without a prescription. [4] Also, newspapers state the lack of control in the sale of antibiotics. [6,7]

[1] Bolivia.com. 2016. "State Medicines Agency will regulate the use of antibiotics (Agencia Estatal de Medicamentos regular el uso de antibióticos)". [<https://www.bolivia.com/actualidad/nacionales/sdi/144077/agencia-estatal-de-medicamentos-regulara-el-uso-de-antibioticos>]. Accessed December 2020.

[2] Ministerio de Salud. 2017. "AGEMED provides for physicians to comply with regulations for the containment of antimicrobial resistance (Agemed dispone que medicos cumplan normativa para la contencion de la Resistencia a los antimicrobianos)". [<https://www.minsalud.gob.bo/2138-agemed-dispone-que-medicos-cumplan-normativa-para-la-contencion-de-la-resistencia-a-los-antimicrobianos>]. Accessed December 2020.

[3] Estado Plurinacional de Bolivia. Law No. 1737 of 1996. "The Medicines Law (Ley del Medicamento)". [<http://agemed.minsalud.gob.bo/reg-far/1.htm>]. Accessed December 2020.

[4] Pan American Health Organisation. 2009. "Antimicrobial Resistance, Country Profile, Bolivia". [http://www1.paho.org/hq/dmdocuments/2009/Perfil_de_pais_Bolivia.pdf]. Accessed December 2020.

[5] Estado Plurinacional de Bolivia. Supreme Decree No. 25235 of 1998. "Regulation of the Medicines Law (Reglamento a la Ley del Medicamento)" [<http://agemed.minsalud.gob.bo/reg-far/2.htm>]. Accessed December 2020.

[6] El Diario Nacional. April 2019. "They sell drugs without a prescription in the market (Comercializan fármacos sin receta médica en el mercado)" [https://www.eldiario.net/noticias/2019/2019_04/nt190407/nacional.php?n=38&-comercializan-farmacos-sin-receta-medica-en-el-mercado]. Accessed December 2020.

[7] VEA.GLOBAL. October 2020. "THE MEDICAL PRESCRIPTION AND PRESCRIPTION PROBLEMS IN BOLIVIA (LA RECETA MÉDICA Y LOS PROBLEMAS DE LA PRESCRIPCIÓN EN BOLIVIA)" [<https://www.vea.global/receta-medica-valorada-electronica/>]. Accessed December 2020.

1.1.2b

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

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

Current Year Score: 1

There is regulation that requires prescriptions for antibiotic use for animals in Bolivia, however, in practice there are difficulties to enforce the legislation. The Technical Regulation for Registration and Control of Veterinary and/or Zootechnical Entities (Reglamento Técnico para el Registro y Control de Empresas Veterinarias y/o Zootécnicas), issued by the National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria) under the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), requires the use of prescriptions by veterinary doctors for medications, including antibiotics and antimicrobials. [1,2] However, according to the OIE PVS assessment in 2014, the "PVS Mission Follow-up Evaluation" (Misión de Evaluación PVS de Seguimiento)", there is a limited capacity to exercise regulatory and administrative control over the prescription of antibiotics. [3]

[1] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. [<http://www.senasag.gob.bo/>]. Accessed December 2020.

[2] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. "Technical regulation for the registration and control of veterinary and zootechnical businesses (Reglamento Técnico para el Registro y Control de Empresas Veterinarias y/o Zootécnicas)". Accessed December 2020.

[3] World Organisation for Animal Health (OIE). "Misión de Evaluación PVS de Seguimiento". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Bolivia has national legislation, plans, or equivalent strategy documents on zoonotic disease.

Although Bolivia has a series of separate documents with strategies and policies on zoonotic disease in terms of risks to human health, there is no evidence of a plan, document or legislation. The Ministry of Health (Ministerio de Salud) has an Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia), tasked with enforcing national norms to supervise, prevent, and control zoonosis and rabies. The unit has issued norms for the vigilance and prevention of fascioliasis and hydatidosis, and human and domestic animal rabies. These diseases are defined as threats to human health. [1] The National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria), which operates within the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) has programmes of animal health, including plans for the prevention of apthose fever, classical swine fever, brucellosis and rabies. The program identifies brucellosis, rabies and tuberculosis as threats to human health. [2,6]. The Departmental Health Service, the public healthcare system, operates the Zoonosis Vigilance and Control Programme (Programa de Control y Vigilancia de Zoonosis) in its centres in the capital city, La Paz. The principal objective of the programme is to reduce the prevalence of canine and human rabies by 80%. The plan defines the disease as a threat to human health. [3] There is no evidence of a singular document or plan in the Ministry of Health, the Ministry of Rural Development and Land or the World Organisation of Animal Health (OIE) 2014 PVS Evaluation Report. [4,5,6]

[1] Ministerio de Salud. "Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia)". [<https://www.minsalud.gob.bo/38-libros-y-normas/fichas-bibliograficas/1573-area-zoonosis>]. Accessed December 2020.

[2] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. "Animal Health Programmes (Programas de Sanidad Animal)". [<https://www.senasag.gob.bo/unidades/sanidadanimal>]. Accessed December 2020.

[3] Servicio Departamental de Salud. "Zoonosis Vigilance and Control Programme (Programa de Control y Vigilancia de Zoonosis)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PROGRAMA%20DE%20CONTROL%20Y%20VIGILANCIA%20DE%20ZOOONOSIS.pdf>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[6] World Organisation for Animal Health (OIE). "PVS Evaluation Mission (Misión de Evaluación PVS de Seguimiento, Bolivia)". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there is national legislation, plans or equivalent strategy document(s) which include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

Although the Zoonosis Vigilance and Control Programme (Programa de Control y Vigilancia de Zoonosis) identifies pathways for transmission of zoonotic diseases from animals to humans, there are no specific measures to limit spillover diseases other than diminish the population of errant dogs to limit rabies contagion and conduct vaccination campaigns. [1] There is no further evidence in the OIE PVS assessment in 2014, the "PVS Mission Follow-up Evaluation" (Misión de Evaluación PVS de Seguimiento); the Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia), the Ministry of Health (Ministerio de Salud) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [2,3,4,5]

[1] Servicio Departamental de Salud. "Zoonosis Vigilance and Control Programme (Programa de Control y Vigilancia de Zoonosis)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PROGRAMA%20DE%20CONTROL%20Y%20VIGILANCIA%20DE%20ZOONO SIS.pdf>]. Accessed December 2020.

[2] World Organisation for Animal Health (OIE). "Misión de Evaluación PVS de Seguimiento". 2014.

[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

[3] Ministerio de Salud. "Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia)". [<https://www.minsalud.gob.bo/38-libros-y-normas/fichas-bibliograficas/1573-area-zoonosis>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that Bolivia has a series of separate documents with strategies and policies that account for the surveillance and control of multiple zoonotic pathogens of public health concern. The Ministry of Health (Ministerio de Salud) has an Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia), tasked with enforcing national norms to supervise, prevent, and control zoonosis and rabies, however, there is no evidence

of a single plan, document or legislation.

The unit has issued norms for the vigilance and prevention of fascioliasis and hydatidosis, and human and domestic animal rabies. [1] The National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria; SENASAG), which operates within the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), has programmes for animal health, including plans for the prevention of apthose fever, classical swine fever, brucellosis and rabies. [2,6] According to the 2014 OIE PVS Evaluation Report, the National Epidemiological Veterinary Vigilance System (Sistema Nacional de Vigilancia Epidemiologica; SINAVE), which operates within SENASAG with the objective of detecting animal disease for purposes of early detection, conducts regular vigilance and sampling for avian salmonellosis, avian micoplasmosis, bovine tuberculosis, classic porcine flu, encephalopathy bovine spongiform and sarcocystiosis in South American camelids. SINAVE in turn reports to the OIE. [6] The Departmental Health Service, the public healthcare system, operates the Zoonosis Vigilance and Control Programme (Programa de Control y Vigilancia de Zoonosis) in its centres in the capital city, La Paz. The principle objective of the program is to reduce the prevalence of canine and human rabies by 80%. [3] The Ministry of Health has a strategy, the Integrated Management Strategy (Estrategia de Gestion Integrada; EGI) for the prevention and control of dengue, chikungunya and zika that dates to 2015. The strategy contains several components of epidemiological vigilance, integral patient care, environmental sanitation and social mobilisation. [4] Law No. 365 on Prevention and Control of Dengue, Zika, and Chikungunya of 2017 mandates the application of the EGI.[5] There is no evidence of a singular document or plan in the Ministry of Health, the Ministry of Rural Development and Land or the World Organisation of Animal Health (OIE) 2014 PVS Evaluation Report. [7,8,6]

[1] Ministerio de Salud. "Area of Vigilance and Control of Zoonosis and Rabies (irea de Vigilancia y Control de Zoonosis y Rabia)". [<https://www.minsalud.gob.bo/38-libros-y-normas/fichas-bibliograficas/1573-area-zoonosis>]. Accessed December 2020.

[2] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. "Animal Health Programmes (Programas de Sanidad Animal)". [<https://www.senasag.gob.bo/unidades/sanidadanimal>]. Accessed December 2020.

[3] Servicio Departamental de Salud. "Zoonosis Vigilance and Control Programme (Programa de Control y Vigilancia de Zoonosis)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PROGRAMA%20DE%20CONTROL%20Y%20VIGILANCIA%20DE%20ZOONO SIS.pdf>]. Accessed December 2020.

[4] Ministerio de Salud. 2016. "Health ministry implements Integrated Management Strategy (EGI) to control dengue, chikungunya and zika (Salud implementa estrategia integrada e gestion (EGI) para controlar el dengue, chikungunya, y zika)". [<https://www.minsalud.gob.bo/922-salud-implementa-estrategia-integrada-de-gestion-egi-para-controlar-el-dengue-chikungunya-y-zika>]. Accessed December 2020.

[5] Ministerio de Salud. 2017. "Law 365 establishes the implementation of the action strategy against dengue, zika, and chikungunya (Ley 365 establece obligatoriedad de la implementacion de la estrategia de acciones contra dengue, zika, y chikungunya)". [<https://www.minsalud.gob.bo/2081-ley-365-establece-obligatoriedad-de-la-implementacion-de-la-estrategia-de-acciones-contra-dengue-zika-y-chikungunya>]. Accessed December 2020.

[6] World Organisation for Animal Health (OIE). "PVS Evaluation Mission (Misiùn de Evaluaciùn PVS de Seguimiento, Bolivia)". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

[7] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[8] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 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 in the Ministry of Health (Ministerio de Salud), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), or the National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria) within the Ministry of Rural Development and Land of a zoonotic disease unit which functions across multiple ministries. [1,2,3] There is no evidence of shared mechanisms in the OIE PVS Evaluation Report (2014). [4]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. [<http://www.senasag.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[4] World Organisation for Animal Health (OIE). "PVS Evaluation Mission (Misi n de Evaluaci n PVS de Seguimiento, Bolivia)". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 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

Bolivia has a national mechanism for reporting of disease surveillance. The National Epidemiological Veterinary Vigilance System (Sistema Nacional de Vigilancia Epidemiol gica) within the National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria; SENASAG) has the objective of early detection of animal disease. Information is obtained from "informative units", which are mostly veterinary clinics in different jurisdictions, that gather information on disease from their vicinities. There are also "epidemiological sensors", which are entities or individuals that notify the informative units via telephone, radio frequency or a telephone hotline. [1,2] The National Epidemiological Veterinary Vigilance System manual notes that these "sensors" include producers and livestock owners, as well as community leaders and representatives, students of agriculture and related fields, and owners of businesses. [2] No further information regarding this system is available via SENASAG, the Ministry of Health (Ministerio de Salud) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [1,2,3,4,5]

[1] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. National Area of Vigilance and Programmes (Area Nacional de Vigilancia y Programas)". [<http://www.senasag.gob.bo/vigilanciayprogramas.html>]. Accessed December 2020.

[2] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. 2006. "Manual of the National System of Epidemiological Vigilance (Manual Sistema Nacional de Vigilancia Epidemiol gica)". [<http://www.senasag.gob.bo/publicaciones-sa/category/5180-manuales.html?download=708:sistema-nacional-de-vigilancia-epidemiologica>]. Accessed December 2020.

[3] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. [<http://www.senasag.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 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 laws or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals. The National Epidemiological Veterinary Vigilance System (Sistema Nacional de Vigilancia Epidemiologica), within the National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria; SENASAG), which has the objective of detecting animal disease for purposes of early detection, does not refer to privacy or confidentiality in its Manual. [1,2] There is no further evidence via SENASAG, the Ministry of Health (Ministerio de Salud), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), or the OIE PVS Evaluation Report (2014). [3,4,5,6] Bolivia still does not have a general data privacy law. [7]

[1] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. "National Area of Vigilance and Programmes (Area Nacional de Vigilancia y Programas)". [<http://www.senasag.gob.bo/vigilanciayprogramas.html>]. Accessed December 2020.

[2] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. 2006. "Manual of the National System of Epidemiological Vigilance (Manual Sistema Nacional de Vigilancia Epidemiologica)". [<http://www.senasag.gob.bo/publicaciones-sa/category/5180-manuales.html?download=708:sistema-nacional-de-vigilancia-epidemiologica>]. Accessed December 2020.

[3] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. [<http://www.senasag.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralitytierras.gob.bo/>]. Accessed December 2020.

[6] World Organisation for Animal Health (OIE). "PVS Evaluation Mission (Misi n de Evaluaci n PVS de Seguimiento, Bolivia)". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

[7] Progreso. "Compilation on Protection of Personal Data (Compilaci n sobre Protecci n de Datos Personales)". [<http://www.fundacionmicrofinanzasbbva.org/revistaprogreso/proteccion-datos-personales-2/>]. Accessed December 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

Bolivia conducts surveillance of zoonotic disease in wildlife. The National Epidemiological Veterinary Vigilance System (Sistema Nacional de Vigilancia Epidemiologica; SINAVE) within the National Service of Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria; SENASAG) conducts surveillance of zoonotic disease. Part of the vigilance system takes place "on centres of wild fauna", where "the information originates from". [1] SINAVE conducts both passive and active vigilance of the 35 diseases of obligatory reporting. The vigilance focuses on infections of domestic and wild animals. [2] Furthermore, the National Zoonitary Emergency System (Sistema Nacional de Emergencias Zoonitarias), also a dependency of SENASAG, is tasked with re-establishing previous zoonitary conditions in the face of the occurrence of exotic and/or zoonotic disease detected by SINAVE. The programme includes vigilance of animals in the field and in slaughterhouses. In the case of insects, the plan includes direct surveillance, destruction and assessment of the

insects. [3,4]

[1] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. "National Area of Vigilance and Programmes (Area Nacional de Vigilancia y Programas)". [<http://www.senasag.gob.bo/vigilanciayprogramas.html>]. Accessed December 2020.

[2] World Organisation for Animal Health (OIE). "PVS Evaluation Mission (Misi n de Evaluaci n PVS de Seguimiento, Bolivia)". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

[3] Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria. "National System of Zoosanitary Emergency (Sistema Nacional de Emergencia Zoosanitaria)".

[<http://www.senasag.gob.bo/vigilanciayprogramas/vigilanciaepidemiologica/sinaez.html>. Accessed December 2020].

[4] Sistema Nacional de Emergencias Zoosanitarias. "Regulation of the National System of Zoosanitary Emergency (Reglamento del Sistema Nacional de Emergencia Zoosanitaria)".

[http://www.senasag.gob.bo/dmdocuments/Sistema_Nacional_de_Emergencia_Zoosanitaria_101106.pdf]. Accessed December 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: 71.97

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 45.21

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of mechanisms for working with the private sector in several national plans on zoonotic disease. The Ministry of Health (Ministerio de Salud) operates the Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia), tasked with enforcing national norms to supervise, prevent, and control zoonosis and rabies. The unit has issued norms for the vigilance and prevention of fascioliasis and hydatidosis, and human and domestic animal rabies. These norms do not include mechanisms for working with the private sector [1]. There is no evidence of mechanisms in the OIE PVS Evaluation Report (2014). [2] There is no evidence of these mechanisms in the zoonotic disease prevention and surveillance programme (Programa de Control y Vigilancia de Zoonosis) of the Departmental Health Service (SEDES), which is the public healthcare system. [3] There is no evidence in the Ministry of Health's Integrated Management Strategy (Estrategia de Gestion Integrada; EGI) for the prevention and control of dengue, chikungunya, and zika (2015), which is based on the Law No. 365 on Prevention and Control of Dengue, Zika, and Chikungunya, passed in 2017, which mandates the application of the EGI. The strategy refers to "strategic alliances" to achieve social and community mobilisation, but does not explicitly mention the private sector. [4,5,6] There is no evidence in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), in the Ministry of Health or the Ministry of Rural Development and Land. [7,8,9]

[1] Ministerio de Salud. "Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia)". [<https://www.minsalud.gob.bo/38-libros-y-normas/fichas-bibliograficas/1573-area-zoonosis>]. Accessed December 2020.

[2] World Organisation for Animal Health (OIE). "PVS Evaluation Mission (Misi n de Evaluaci n PVS de Seguimiento, Bolivia)". 2014. [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

[3] Servicio Departamental de Salud. "Zoonosis Control and Vigilance Programme (Programa de Control y Vigilancia de Zoonosis)". [<https://www.sedeslapaz.gob.bo/sites/default/files/PROGRAMA%20DE%20CONTROL%20Y%20VIGILANCIA%20DE%20ZOONOSIS.pdf>]. Accessed December 2020.

[4] Ministerio de Salud. 2016. "Ministry of Health implements integrated management strategy (EGI) to control dengue, chikungunya, and zika (Salud implementa estrategia integrada de gestion (EGI) para controlar el dengue, chikungunya, y zika)". [<https://www.minsalud.gob.bo/922-salud-implementa-estrategia-integrada-de-gestion-egi-para-controlar-el-dengue-chikungunya-y-zika>]. Accessed December 2020.

[5] Ministerio de Salud. 2017. "Law 365 establishes the implementation of the action strategy against dengue, zika, and chikungunya (Ley 365 establece obligatoriedad de la implementacion de la estrategia de acciones contra dengue, zika, y chikungunya)". [<https://www.minsalud.gob.bo/2081-ley-365-establece-obligatoriedad-de-la-implementacion-de-la-estrategia-de-acciones-contra-dengue-zika-y-chikungunya>]. Accessed December 2020.

[6] Ministerio de Salud. 2016. "Integrated Management Strategy for Prevention and Control of Dengue, Chikungunya, and Zika (Estrategia de Gestion Integrada de Prevencion y Control de Dengue, Chikungunya, y Zika)". [<https://etv-dengue.minsalud.gob.bo/component/jdownloads/send/2-guias-y-protocolos/7-estrategia-de-gestion-integrada-de-prevencion-y-control-de-dengue-chikungunya-y-zika-ley-n-l-i-v-o-m-c-a-z-i-i-o-n-o-s-889-2016>].

2018?option=com_jdownloads]. Accessed January 2018.

[7] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[8] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[9] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a record, updated within the past five years, of the facilities in which especially dangerous pathogens and toxins are stored or processed in the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud) or the Ministry of Defence (Ministerio de Defensa). There is no evidence in the Ministry of Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) or in the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit). [1,2,3,4,5] There is no evidence in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [6] Bolivia does not have a ministry of research. Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [7]

[1] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[6] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[7] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence via the Ministry of Health (Ministerio de Salud), National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit), that Bolivia has legislation and/or regulations related to biosecurity. [1,2,3,4] Supreme Decree No. 24176, of 1995, on the Regulation of Activities with Dangerous Substances, addresses the storage, final disposition, transportation and containment of dangerous and toxic substances. There is no evidence within Decree No. 24176 of stipulations regarding information provided within laboratories to prevent unauthorised possession, loss, theft, misuse, diversion or intentional release. [5] The Regulation on Biosecurity of 1997 contains guidelines for the manipulation, research, production, use, transport, storage and conservation of genetically modified organisms (GMOs). There is no evidence within Decree No. 24176 of stipulations regarding information provided within laboratories to prevent unauthorised possession, loss, theft, misuse, diversion or intentional release. [6] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [7] There is no further evidence in the Ministry of Health and the Ministry of Rural Development and Land. [8,9]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[4] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[5] Gobierno Autonomo Departamental de Santa Cruz. 1995. Supreme Decree No. 24176 of 2015. "Regulations of Activities with Dangerous Substances (Reglamento para Actividades con Sustancias Peligrosas)". [<http://santacruz.gob.bo/sczpdf//3489>]. Accessed December 2020.

[6] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)". [<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[7] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

[8] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[9] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

1.3.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence via the Ministry of Health (Ministerio de Salud), National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit) that Bolivia has legislation and/or regulations related to biosecurity. There is no evidence in any of the sources of an established agency for the enforcement of biosecurity legislation and regulation. [1,2,3,4] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [5] There is no further evidence in the Ministry of Health or the Ministry of

Rural Development and Land. [6,7]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[4] The Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[5] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

[6] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[7] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence via the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. [1,2,3,4] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [5] There is no further evidence in the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit). [6]

[1] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

[6] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of in-country capacity to conduct Polymerase Chain Reaction-based diagnostic testing for anthrax and/or Ebola in the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) or the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [1,2,3,4,5]

[1] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 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 requirements for biosecurity training via the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) or the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud) . [1,2,3,4,5] Furthermore, there is no evidence via the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit) regarding this. [6] There is no evidence of requirements for biosecurity training in the Supreme Decree No. 24176 on the Regulation of Activities with Dangerous Substances of 1995, which addresses the storage, final disposition, transportation and containment of dangerous and toxic substances. [7] There is no evidence within the Regulation on Biosecurity of 1997, which contains guidelines for the manipulation, research, production, use, transport, storage and conservation of genetically modified organisms (GMOs). [8] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [9]

[1] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[6] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[7] Gobierno Autonomo Departamental de Santa Cruz. 1995. Supreme Decree No. 24176 of 2015. "Regulations of Activities with Dangerous Substances (Reglamento para Actividades con Sustancias Peligrosas)".

[<http://santacruz.gob.bo/sczpdf//3489>]. Accessed December 2020.

[8] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)".

[<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[9] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is no evidence via the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) of requirements that security and other personnel with access to especially dangerous pathogens, toxins or biological materials with pandemic potential be subject to drug testing, background checks and psychological or mental fitness checks. [1,2,3,4] Furthermore, there is no evidence via the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit) regarding this. [6] Neither is there evidence in Supreme Decree No. 24176 on the Regulation of Activities with Dangerous Substances of 1995, which addresses the storage, final disposition, transportation, and containment of dangerous and toxic substances. [7] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [8]

[1] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] Gobierno Autonomo Departamental de Santa Cruz. 1995. Supreme Decree No. 24176 of 2015. "Regulations of Activities with Dangerous Substances (Reglamento para Actividades con Sustancias Peligrosas)".

[<http://santacruz.gob.bo/sczpdf//3489>]. Accessed December 2020.

[6] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database"

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

[7] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)".

[<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[8] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

1.3.4 Transportation security

1.3.4a

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence of national regulations on the safe and secure transport of infectious substances (Categories A and B).

The Immunopreventable Diseases Surveillance Manual presents regulations for the safe and secure transport of infectious substances (Categories A and B). It is a technical document issued by the Ministry of Health in 2016 which aims to work as an orientation framework regarding the operative decisions related to health facilities. It has a section dealing with the transport of samples and biosecurity norms. These regulations follow the international norms established by IATA, which establish the net quantity of material to be shipped according to the type of biological material. [1]

Further evidence could not be found in the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud) or the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit) [2,3,4,5,6,7] Bolivia does not have a Ministry of Research. Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [8]

[1] Ministry of Health. "Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PAI%20Manual%20de%20Vigilancia%20de%20Enfermedades%20Inmunoprevenibles.pdf>]. Accessed December 2020.

[2] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[6] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[7] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database" [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[8] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

1.3.5 Cross-border transfer and end-user screening

1.3.5a

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that there is 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. The Immunopreventable Diseases Surveillance Manual presents regulations for the safe and secure transport of infectious substances (Categories A and B) and also oversees cross-border transfer and end-user screening of especially dangerous pathogens. For instance, it defines the responsibilities of the shipper who has to verify the correct - complete identification and classification of all biological samples to be transported. The consignee obtains the necessary authorization from the national authorities for importation and provides the sender with the permits, authorization letters or other documents that are required by the national authorities. He is also in charge of making the arrangements to collect the shipment in the most efficient and timely manner once it reaches its destination. On the other hand, for end-user screening, the reception points must be perfectly identified by the personnel transporting the samples and they will be the only points of contacts where they can be delivered to the sender with the permits, authorization letters or other documents that are required by the national authorities. The reception service personnel are required to know in advance the number of samples to be received, which ensures the possibility of avoiding lost or missing samples.

The recipient also needs to be trained in biosecurity so that in the event of any type of spill, he/she can take all the necessary measures so that there is no contamination of the environment. [1] Further evidence could not be found in the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud) or the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit) [2,3,4,5,6,7] Bolivia does not have a ,Ministry of Research. Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that is has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [8]

[1] Ministry of Health. "Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PAI%20Manual%20de%20Vigilancia%20de%20Enfermedades%20Inmunoprevenibles.pdf>]. Accessed December 2020.

[2] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[6] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[7] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database" [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[8] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state/>]. Accessed December 2020.

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that the country has in place national biosafety legislation and/or regulations. The regulation for laboratories in Bolivia, the General Regulation for the Habilitation of Laboratories (Reglamento General para la Habilitacion de Laboratorios), which regulates norms of all operational aspects of laboratories operating in the country, is issued and enforced by the Ministry of Health (Ministerio de Salud). The rules refer to "biosafety", referring to measures taken to protect lab personnel from risks on the job. The relevant norm indicates that laboratories are responsible for ensuring that staff follow internal biosafety guidelines. In that regard, laboratories must provide technical measures to minimise the risks of exposure to body fluids, contaminated material, solvents, spills and physical or chemical burns. [1] The Regulations on Biosecurity (Reglamento Sobre Bioseguridad) of 1997, which contain guidelines for the manipulation, research, production, use, transport, storage and conservation of genetically modified organisms (GMOs), indicate that each facility must disclose to the health ministry its plans to protect the health of its personnel.[2] Supreme Decree No. 24176 on the Regulation of Activities with Dangerous Substances (1995) addresses the storage, final disposition, transportation and containment of dangerous and toxic substances, and the granting of import licences. There are no references to biosafety standards as per this definition. [3] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [4]

[1] Ministerio de Salud. 2010. "General Regulation for the Habilitation of Laboratories (Reglamento General para la Habilitacion de Laboratorios)". [<https://www.minsalud.gob.bo/images/Descarga/laboratorio/publicacion%20162.pdf>]. Accessed December 2020.

[2] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)". [<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[3] Gobierno Autonomo Departamental de Santa Cruz. 1995. Supreme Decree No. 24176 of 2015. "Regulations of Activities with Dangerous Substances (Reglamento para Actividades con Sustancias Peligrosas)". [<http://santacruz.gob.bo/sczpdf//3489>]. Accessed December 2020.

[4] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that there is an established agency responsible for the enforcement of biosafety legislation and regulations. The regulation for laboratories in Bolivia, the General Regulation for the Habilitation of Laboratories (Reglamento General para la Habilitacion de Laboratorios), which regulates norms of all operational aspects of laboratories operating in the country, is issued and enforced by the Ministry of Health (Ministerio de Salud). The rules refer

to "biosafety", referring to measures taken to protect lab personnel from risks on the job. The relevant norm indicates that laboratories are responsible for ensuring that staff follow internal biosafety guidelines. In that regard, laboratories must provide technical measures to minimise the risks of exposure to body fluids, contaminated material, solvents, spills and physical or chemical burns. [1] The Regulations on Biosecurity (Reglamento Sobre Bioseguridad) of 1997, which contain guidelines for the manipulation, research, production, use, transport, storage and conservation of genetically modified organisms (GMOs), indicate that each facility must disclose to the health ministry its plans to protect the health of its personnel. [2] Supreme Decree No. 24176 on the Regulation of Activities with Dangerous Substances (1995) addresses the storage, final disposition, transportation and containment of dangerous and toxic substances, and the granting of import licences. There are no references to biosafety standards as per this definition. [3] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [4]

[1] Ministerio de Salud. 2010. "General Regulation for the Habilitation of Laboratories (Reglamento General para la Habilitacion de Laboratorios)". [<https://www.minsalud.gob.bo/images/Descarga/laboratorio/publicacion%20162.pdf>]. Accessed December 2020.

[2] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)". [<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[3] Gobierno Autonomo Departamental de Santa Cruz. 1995. Supreme Decree No. 24176 of 2015. "Regulations of Activities with Dangerous Substances (Reglamento para Actividades con Sustancias Peligrosas)". [<http://santacruz.gob.bo/sczpdf//3489>]. Accessed December 2020.

[4] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country requires biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. The General Regulation for the Habilitation of Laboratories (Reglamento General para le Habilitacion de Laboratorios), which stipulates norms for all operational aspects of laboratories operating in the country, does not refer to requirements of biosafety training. The regulation refers to "biosafety", in relation to measures taken to protect lab personnel from risks on the job. [1] There are biosecurity regulations, in the form of the 1997 Regulation on Biosecurity, which contains guidelines for the manipulation, research, production, use, transport, storage and conservation of genetically modified organisms (GMOs), and indicates that each facility must disclose to the Ministry of Health (Ministerio de Salud) its plans to protect the health of its personnel. [2] Supreme Decree No. 24176 on the Regulation of Activities with Dangerous Substances of 1995 addresses the storage, final disposition, transportation and containment of dangerous and toxic substance, and the granting of import licences. There are no references to biosafety standards as per this definition. [3] There is no additional information available via the website of the Ministry of Health or the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit).[4,5] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any

Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [6] There is no further evidence in the Ministry of Defence (Ministerio de Defensa) and the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [7,8]

[1] Ministerio de Salud. 2010. "General Regulation for the Habilitation of Laboratories (Reglamento General para la Habilitacion de Laboratorios)". [<https://www.minsalud.gob.bo/images/Descarga/laboratorio/publicacion%20162.pdf>]. Accessed December 2020.

[2] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)". [<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[3] Gobierno Autonomo Departamental de Santa Cruz. 1995. Supreme Decree No. 24176 of 2015. "Regulations of Activities with Dangerous Substances (Reglamento para Actividades con Sustancias Peligrosas)". [<http://santacruz.gob.bo/sczpdf//3489>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

[6] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

[7] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[8] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence via the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa) or the Ministry of Environment and Water (Ministerio de Medio Ambiente y Agua) that Bolivia has conducted an assessment to determine whether research is occurring on dangerous pathogens. [1,2,3] Furthermore, there is no evidence of research on dangerous pathogens in the Medical Information Centre of Bolivia (Centro de Informacion Medica de Bolivia), an association of healthcare providers and academics on medical and scientific information, or the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [4,5] Bolivia does not have a ministry of research. Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [6] There is no additional information available via the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit).[7] There is no further evidence in the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [8]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

- [3] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.
- [4] Centro de Informacion Medica de Bolivia. [<https://www.cimbol.com.bo/com-content/article/quienes-somos>]. Accessed December 2020.
- [5] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.
- [6] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.
- [7] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.
- [8] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence via the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa), or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) that Bolivia has a national policy requiring oversight of dual-use research, such as research with especially dangerous pathogens, toxins and/or pathogens with pandemic potential. [1,2,3] There is no evidence of research on dangerous pathogens in the Medical Information Centre of Bolivia (Centro de Informacion Medica de Bolivia), an association of healthcare providers and academics on medical and scientific information, or via the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [4,5] Bolivia does not have a ministry of research. Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [6] There is no additional information available via the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit).[7]

- [1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.
- [2] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.
- [3] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.
- [4] Centro de Informacion Medica de Bolivia. [<https://www.cimbol.com.bo/com-content/article/quienes-somos>]. Accessed December 2020.
- [5] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.
- [6] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.
- [7] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence via the Ministry of Health (Ministerio de Salud), the Ministry of Defence (Ministerio de Defensa), or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) that Bolivia has an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, and/or other dual-use research. [1,2,3] There is no evidence of research on dangerous pathogens in the Medical Information Centre of Bolivia (Centro de Informacion Medica de Bolivia), an association of healthcare providers and academics on medical and scientific information, or via the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [4,5] Bolivia does not have a ministry of research. Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [6] There is no additional information available via the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit).[7]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

[3] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[4] Centro de Informacion Medica de Bolivia. [<https://www.cimbol.com.bo/com-content/article/quienes-somos>]. Accessed December 2020.

[5] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[6] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

[7] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database". [<http://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/>]. Accessed December 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of national legislation, regulation, policy or other guidance requiring the screening of synthesised DNA before it is sold. The Regulation on Biosecurity of 1997, which contains guidelines for the manipulation, research, production, use, transport, storage and conservation of genetically modified organisms (GMOs), does not mention DNA for pathogens. It does indicate that modified DNA organisms must be approved by the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua), but there is no evidence that the DNA requires screening. [1] There is no evidence available via the Ministry of Health (Ministerio de Salud) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) of national legislation, regulation, policy or other guidance requiring the screening of synthesised DNA before it is sold. [2,3] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has

submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [4] There is no additional information available via the Verification Research, Training and Information Centre (VERTIC, a UK-based non-profit).[5] There is no further evidence in the Ministry of Defence (Ministerio de Defensa). [6]

[1] Lex I Vox Portal Juridico Libre. 1997. "Regulations on Biosecurity (Reglamento sobre bioseguridad)".

[<https://www.lexivox.org/norms/BO-RE-DS24676B.html>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralitytierras.gob.bo/>]. Accessed December 2020.

[4] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

[5] Verification Research, Training and Information Centre. "UN Biological Weapons Convention Legislation Database".

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

[6] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]. Accessed December 2020.

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 0

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 0

Although there is evidence that the national laboratory system for the country tests for at least some of the World Health Organisation (WHO) core diseases, there is insufficient evidence that it can conduct at least five of the ten WHO core tests. The National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA) serves as a reference laboratory for the public laboratory system in Bolivia. [1] Of the six tests common across all countries, INLASA only notes that it can conduct two tests: Polymerase chain reaction (PCR) testing for influenza and rapid testing for HIV. [2] For HIV, the laboratory lists rapid testing, Ag/Ac testing via ELISA (Serology) and PCR testing. For tuberculosis, the laboratory lists IGRA testing via ELISA, but not microscopy. [3] For malaria, thick blood smears are listed, but not rapid testing. [4] Although testing for salmonella is mentioned, there is no information on what type of test is conducted. [5] Concerning Poliovirus, tests are conducted in the Malbrán Institute, located in Argentina, which is considered the laboratory of reference. [6] There is no evidence available via INLASA, the Ministry of Health (Ministerio de Salud) or the WHO that INLASA has publicly defined the four country-specific tests. [7,8,9] There is no further information on testing capabilities on the Ministry of Health website. [8] Although there is evidence of collaboration with regional laboratories, there is no evidence via INLASA or the Ministry of Health if tests can be conducted by regional laboratories. [6,7,8] Although Bolivia is party to the UN Biological Weapons Convention, there is no public evidence that it has submitted any Confidence Building Measures reports since 1994. The 1994 report is not publicly available; as such, it is unknown if it contains information on this subject. [8]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] World Health Organisation (WHO). [<https://www.who.int/>]. Accessed December 2020.

[4] Pan American Health Organisation (PAHO). 2017. "Influenza Report EW 21". [<https://www.paho.org/hq/dmdocuments/2017/2017-phe-flu-regional-update-ew-21.pdf>]. Accessed December 2020.

[5] Brazilian Interdisciplinary AIDS Association. 2006. "Access to AIDS treatment in Bolivia and Paraguay". [http://www.abiaids.org.br/_img/media/access_aids_treatment_ingles.pdf]. Accessed December 2020.

[6] Ministry of Health. "Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PAI%20Manual%20de%20Vigilancia%20de%20Enfermedades%20Inmunoprevenibles.pdf>]. Accessed December 2020.

[7] Ministerio de Salud. "Procedures Standardised for Sensitivity and Resistance to Antituberculosis Medications (Estandarizaran Procedimientos de Sensibilidad y Resistencia a Medicamentos Antituberculosos)".

[<https://www.minsalud.gob.bo/1462-estandarizaran-procedimientos-de-sensibilidad-y-resistencia-a-medicamentos->

antituberculosos. Accessed December 2020.

[8] Ministerio de Salud. 2017. "Ministry of Health Strengthens Diagnosis to Detect People with Malaria in Beni and Pando (Ministerio de Salud Fortalece Diagnostico Para Detectar Personas con Malaria en Beni y Pando)".

[<https://www.minsalud.gob.bo/2250-ministerio-de-salud-fortalece-diagnostico-para-detectar-personas-con-malaria-en-beni-y-pando>]. Accessed December 2020

[9] United Nations. "Bolivia - Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/bolivia-plurinational-state>]. Accessed December 2020.

2.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence that the country has a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. There is no such evidence via the Ministry of Health (Ministerio de Salud) or in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA. [1,2] Bolivia has a coronavirus disease plan, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19), however, there is no evidence of a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. [3] There is no further evidence in the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [4]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence that the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA) has received the following accreditations: ISO/IEC 17025 on testing and calibration of laboratories, and ISO 17043 on general requirements for proficiency testing. [1,2] There is no evidence available via INLASA or the Ministry of Health (Ministerio de

Salud) of further certifications. [3,4]

[1] Instituto Nacional de Laboratorios de Salud. 2017. "Food Control Laboratory of INLASA receives accreditation through two test methods (Laboratorio de Control de Alimentos de INLASA, recibe acreditaciùn por dos mètodos de ensayo)".

[<https://www.inlasa.gob.bo/2017/09/laboratorio-de-control-de-alimentos-de-inlasa-recibe-acreditacion-por-dos-metodos-de-ensayo/>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. 2017. "External Quality Evaluation Programme (PEEC) (PROGRAMA DE EVALUACION EXTERNA DE LA CALIDAD (PEEC))". [<https://www.inlasa.gob.bo/unidades/red-nacional-de-laboratorios-de-salud/peec/>]. Accessed December 2020.

[3] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA) has undertaken an external quality assurance review conducted by an external party. INLASA undertakes external quality control assessments of laboratories in the country, but also undergoes an external evaluation itself. Per the overview of the external quality assessment programme, INLASA undergoes an external quality assessment for haematology and blood chemistry through the Randox International Quality Assessment Scheme (RIQAS) programme in Ireland, as part of its compliance with the ISO 17043 standard on the general requirements for proficiency testing. [1,2,3] There is no further information available via the Ministry of Health (Ministerio de Salud) or INLASA on the external quality assessment. [4,5]

[1] Instituto Nacional de Laboratorios de Salud (INLASA). "External Quality Evaluation Programme (Programa de Evaluacion Externa de la Calidad)". [<https://www.inlasa.gob.bo/unidades/red-nacional-de-laboratorios-de-salud/peec/>]. Accessed December 2020.

[2] Randox. "RIQAS." [<https://www.randox.com/riqas-external-quality-assessment/>]. Accessed December 2020.

[3] International Organisation for Standardisation. "ISO/IEC 17043:2010." [<https://www.iso.org/standard/29366.html>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/>]. Accessed December 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a nationwide specimen transport system in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Ministry of Health (Ministerio de Salud), or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [1,2,3] There is no evidence in two private laboratories, Illimani Laboratorios and Laboratorios Labtek or in the Immunopreventable Diseases Surveillance Manual. [4,5,6]

[1] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[4] Laboratorios Illimani. [<http://www.laboratoriosillimani.com/>]. Accessed December 2020.

[5] LabTek. [<http://www.laboratorioslabtek.com/>]. Accessed December 2020.

[6] Ministry of Health. "Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PAI%20Manual%20de%20Vigilancia%20de%20Enfermedades%20Inmunoprevenibles.pdf>]. Accessed December 2020.

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is insufficient evidence of a publicly available 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. In the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19), there is some evidence that laboratories and hospitals are being used to supplement the capacity of the national public health laboratory system to scale-up testing during the COVID-19 outbreak [1] However, these agreements could not be found in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Ministry of Health (Ministerio de Salud), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras), in two private laboratories, Illimani Laboratorios and Laboratorios Labtek or in the Immunopreventable Diseases Surveillance Manual. [2,3,4,5,6,7]

[1] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] Laboratorios Illimani. [<http://www.laboratoriosillimani.com/>]. Accessed December 2020.

[6] LabTek. [<http://www.laboratorioslabtek.com/>]. Accessed December 2020.

[7] Ministry of Health. "Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PAI%20Manual%20de%20Vigilancia%20de%20Enfermedades%20Inmunoprevenibles.pdf>]. Accessed December 2020.

prevenibles.pdf]. Accessed December 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 1

There is evidence of an ongoing event-based surveillance (EBS) system, but there is no evidence that the data is analysed on a daily basis. The Ministry of Health (Ministerio de Salud), which has the objective of preventing, providing vigilance for, controlling, and protecting the health of the population in the face of disasters and/or emergencies, has an EBS system. The Evaluation of Health Damages and Needs (Evaluacion de Danos y Necesidades en Salud; EDAN-SALUD) is an app that allows the population to notify in real time disasters and health emergencies. The app can be downloaded from the website of the Ministry of Health. [1,2]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Salud. 2018. "Ministry of Health launches an app for reporting disasters (El Ministerio de Salud lanza una App para reportar situaciones de desastres)". [<https://minsalud.gob.bo/28-el-ministerio-de-salud-lanza-el-aplicativo>]. Accessed December 2020.

2.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence available via the Ministry of Health (Ministerio de Salud) or the World Health Organisation (WHO) Disease Outbreak News webpage that Bolivia has reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years. Bolivia reported a zika virus infection in January 2016. There is no evidence that Covid was reported as a PHEIC to the WHO [1,2]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] World Health Organisation (WHO). Disease Outbreak News (DONs). <https://www.who.int/csr/don/en/>. Accessed December 2020.

2.3.2 Interoperable, interconnected, electronic real-time reporting systems

2.3.2a

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

Yes = 1 , No = 0

Current Year Score: 1

Bolivia operates an electronic reporting surveillance system, the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica; SNIS-VE). The SNIS-VE is national and subnational. The system generates "dynamic reports", which feed from the database; users can generate these directly from the webpage. The information in the SNIS-VE originates from the clinical history database and the perinatal history database, both of which are national. The systems are fed by healthcare facilities (primary and secondary care), which use a software package, the Basic Information Module (Modulo de Informacion Basica) that requires Windows XP or similar. In turn, this data is unified by another electronic system, the Clinical Statistical Information System (Sistema de Informacion Clinico Estadistico).[1] There is evidence that this system is used in the case of the COVID-19 crisis. [2]

[1] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Implementation of Dynamic Reports (Implementacion de reportes dinamicos)".

[https://estadisticas.minsalud.gob.bo/Reportes_Dinamicos/Menu_rep_dinamicos.aspx]. Accessed December 2020.

[2] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the surveillance and reporting system collects real-time laboratory data. Bolivia's electronic reporting surveillance system, the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica), feeds off (electronically) from a series of electronic reports that are filled out by the healthcare facilities at a national and subnational level. Healthcare facilities (primary and secondary care) use a software platform, the Basic Information Module (Modulo de Informacion Basica; MIB), the Primary Attention Health Software (Software de Atencion Primaria en Salud; SOAPS), the Vital Events Administration System (Sistema de Administracion de Hechos Vitales; SIAHV) and the Family File Software (Software de la Carpeta Familiar; SCF). [1] There are different periodicities for submitting. The SOAPS must be updated monthly. [2] There is no evidence in the user manuals of the MIB, SIAHV or SCF as to a requirement for the data to be in real time. [1] There is no evidence of such a system in place in the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19). [3] No further evidence could be found in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Ministry of Health (Ministerio de Salud) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [4,5,6]

[1] Sistema Nacional de Informacion en Salud. 2016. "Implementation of Dynamic Reports (Implementacion de Reportes Dinamicos)". [https://estadisticas.minsalud.gob.bo/Reportes_Dinamicos/Menu_rep_dinamicos.aspx]. Accessed December 2020.

[2] Ministerio de Salud. Ministerial Resolution No. 1707 of 2014. [<https://snis.minsalud.gob.bo/.../7-resoluciones/532-resolucion-1707>]. Accessed December 2020.

[3] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[4] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de->

diagnostico/]. Accessed December 2020.

[5] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[6] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

There is publicly available evidence of an electronic health record (EHR) system in place, but insufficient evidence that suggests the use of EHRs in Bolivia is common.

According to 2017 research by Global Health Intelligence, the penetration of EHRs in Bolivia is 18%. [1] When taking in patients, healthcare facilities are mandated to fill out two forms - the Clinical History Form and the Perinatal History Form. Data from these forms are in turn used as "gathering instruments" for Bolivia's electronic reporting surveillance system, the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica). [2] There is no further evidence in the Ministry of Health (Ministerio de Salud) and the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [3,4]

[1] Global Health Intelligence. 2017. "Electronic Medical Registries are Expanding in Latin America (Crecen los registros médicos electrónicos en América Latina)". [<http://globalhealthintelligence.com/es/analisis-de-ghi/crecen-los-registros-medicos-electronicos-en-america-latina/>]. Accessed December 2020.

[2] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Collection Instruments (Instrumentos de Captación)". [<https://snis.minsalud.gob.bo/instrumentos/captacion>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

2.4.1b

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

Yes = 1, No = 0

Current Year Score: 1

There is evidence that the national public health system has access to electronic health records of individuals in their country. The National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epimemiologica; SNIS-VE), which gathers statistical data on diseases and other health problems of the population, has access to the clinical history database of all entities within the facilities that are part of the national health system, including but not limited to the Sistema Unico de Salud (SUS), Bolivia's state-sponsored universal healthcare system. This is contained in the description of the SNIS-VE. [1,2]

[1] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Production of Services Level 1 (Produccion de Servicios Nivel I)". [<https://snis.minsalud.gob.bo/areas-funcionales/produccion-de-servicios/nivel-i>]. Accessed December 2020.

[2] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Production of Services Level 2 and 3 (Produccion de Servicios Nivel II y III)". [<https://snis.minsalud.gob.bo/areas-funcionales/produccion-de-servicios/nivel-ii-y-iii>]. Accessed December 2020.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence via the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epimemiologica), the national health system (Sistema Unico de Salud) or the Ministry of Health (Ministerio de Salud) that there are data standards to ensure that data is comparable. [1,2,3]

[1] Sistema Nacional de Informacion en Salud. 2016. "Implementation of Dynamic Reports (Implementacion de Reportes Dinamicos)". [https://estadisticas.minsalud.gob.bo/Reportes_Dinamicos/Menu_rep_dinamicos.aspx]. Accessed December 2020.

[2] Ministerio de Salud. "Who Will Benefit (A Quien Beneficiara)". [<https://www.minsalud.gob.bo/programas-de-salud/sistema-unico-de-salud/46-sus/3593-a-quien-beneficiara>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of established mechanisms for purposes of data sharing in the Ministry of Health (Ministerio de Salud), the Ministry of Agriculture (Ministerio de Desarrollo Rural y Tierras), the Ministry of the Environment and Water (Ministerio de Medio Ambiente y Agua) or the World Organisation for Animal Health (OIE) 2014 PVS Evaluation Report of Bolivia.

[1,2,3,4] However, the Ministry of Health leads vigilance and control of zoonosis through the Area of Vigilance and Control of Zoonosis and Rabies (Area de Vigilancia y Control de Zoonosis y Rabia), which is tasked with enforcing national norms to supervise, prevent and control zoonosis and rabies. This unit is part of the health ministry's epidemiology department, alongside vigilance units targeting dengue, chikungunya and zika; HIV; and Malaria. [5]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[3] Ministerio de Medio Ambiente y Agua. [<http://www.mmaya.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Salud. "Areas of the Epidemiology Unit - books, standards, manuals, guides and magazines (iareas de la Unidad de Epidemiologia - libros, normas, manuales, guias y revistas)". [<https://www.minsalud.gob.bo/>]35-libros-y-

normas/1555-unidad-de-epidemiologia]. Accessed December 2020.

[5] World Organisation for Animal Health (OIE). "PVS Evaluation Mission Report". 2014.

[http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/pdf/PVS-Evaluation-FU-Report_Bolivia.pdf]. Accessed December 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient publicly available evidence that Bolivia makes 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) at least on a weekly basis.

Bolivia operates an electronic reporting surveillance system, the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica; SNIS-VE), which generates a bulletin, the "Boletin de Vigilancia Epidemiologica". However, it is not published on a weekly basis. The bulletin contains statistical data on diseases and other health problems of the population, including cases and number of deaths. It is published on a bi-monthly basis. There is evidence that for these reports de-identified health surveillance data is produced [1] The SNIS-VE also has a database that gathers statistical information from healthcare facilities across the country. Users can generate the reports from the website, choosing the fields and topics that they wish to consult. [2] There is no further evidence in the Ministry of Health (Ministerio de Salud) and the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud). [3,4]

[1] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Bulletins (Boletines)".

[<https://snis.minsalud.gob.bo/publicaciones/category/4-boletines>]. Accessed December 2020.

[2] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Implementation of Dynamic Reports (Implementacion de reportes dinamicos)".

[https://estadisticas.minsalud.gob.bo/Reportes_Dinamicos/Menu_rep_dinamicos.aspx]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

2.4.3b

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

Yes = 1 , No = 0

Current Year Score: 1

There is publicly available evidence that the country makes de-identified COVID-19 surveillance data (including details such as daily case count, mortality rate, etc) available via daily reports (or other formats) on government websites (such as the Ministry of Health, or similar). Bolivia publishes in a daily basis, the daily number of new positive cases; the number of people that are being treated at the hospital, the ones that are in intensive care, through the National Health Laboratory Institute

(Instituto Nacional de Laboratorios de Salud; INLASA) and the Ministry of Health (Ministerio de Salud). [1,2]

[1] Instituto Nacional de Laboratorios de Salud. "BOLIVIA SEGURA COVID-19". [<https://www.inlasa.gob.bo/prensa/bolivia-segura-covid-19/>]. Accessed December 2020.

[2] Ministerio de Salud. December 2020. "Health reports 674 new coronavirus infections and an increase in negative tests (Salud reporta 674 nuevos contagios de coronavirus y un incremento en las pruebas negativas)". [<https://www.minsalud.gob.bo/5089-reporte-covid-282>]. Accessed December 2020.

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 1

Bolivia's electronic reporting surveillance system, the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica; SNIS-VE), which gathers statistical data on diseases and other health problems of the population, guarantees the confidentiality of the information held for individuals and health providers. This is explicitly mentioned in the system's description. [1] Confidentiality is also mentioned in the instructive material for health providers when filling out and sending the information to the SNIS-VE; one such example is the "Instructive for filling out the perinatal clinical history (Instructivo para el llenado de la historia clinica perinatal)". [2] Bolivia does not have a law covering the protection of personal data. [3]

[1] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Production of Services Level 1 (Produccion de Servicios Nivel I)". [<https://snis.minsalud.gob.bo/areas-funcionales/produccion-de-servicios/nivel-i>]. Accessed December 2020.

[2] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Instructions for filling out Prenatal Clinical History (Instructivo para el llenado de la Historia Clínica Perinatal)".

[3] Duran, Mario. 2018. "Regulations on protection of personal data in Bolivia (Normativa sobre protecciôn de datos personales en Bolivia)". [<https://medium.com/@mrduranch/normativa-sobre-datos-personales-en-bolivia-ece7a61f50b0>]. Accessed December 2020.

2.4.4b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of protection from cyber attacks in Bolivia's electronic reporting surveillance system, the National Health Information System - Epidemiological Surveillance (Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica), which gathers statistical data on diseases and other health problems of the population. [1] Furthermore, there is no evidence via the Ministry of Health (Ministerio de Salud) or the National Health Laboratory Institute (Instituto

Nacional de Laboratorios de Salud). [2,3] Bolivia does not have a law for the protection of personal data. [4]

[1] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Production of Services Level 1 (Produccion de Servicios Nivel I)". [<https://snis.minsalud.gob.bo/areas-funcionales/produccion-de-servicios/nivel-i>]. Accessed December 2020.

[2] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Instructions for filling out the Perinatal Clinical Record (Instructivo para el llenado de la Historia Clinica Perinatal)".

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[4] Duran, Mario. 2018. "Regulations on protection of personal data in Bolivia (Normativa sobre protecciôn de datos personales en Bolivia)". [<https://medium.com/@mrduranch/normativa-sobre-datos-personales-en-bolivia-ece7a61f50b0>]. Accessed December 2020.

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 2

There is evidence that the government participates in regional organisations to which it has committees to share surveillance data during a health emergency for more than one disease.

Bolivia has participated in the Andean Forum for Epidemiological Vigilance and Health in Frontiers (Foro Andino de Vigilancia Epidemiologica y Salud en las Fronteras), and is a member of the South American Vigilance and Response Network (Red Suramericana de Vigilancia y Respuesta en Salud; RedSur). The latter is a response network for health emergencies for all types of diseases. [1] Bolivia is also part of the Andean Health Organism (Organismo Andino de Salud; ORASCONHU), and ORASCONHU's Andean Plan for the Risk Management of Health Disasters (Plan Andino para la Gestion de Riesgos de Desastres), which provides medical assistance and shares surveillance with member countries in the event of emergencies or disasters. The latter is a response network for health emergencies.[2,3]

[1] Sistema Nacional de Informacion en Salud - Vigilancia Epidemiologica. "Implementation of Dynamic Reports (Implementacion de reportes dinamicos)".

[https://estadisticas.minsalud.gob.bo/Reportes_Dinamicos/Menu_rep_dinamicos.aspx]. Accessed December 2020.

[2] Organismo Andino de Salud. "FOURTH ANDEAN FORUM OF EPIDEMIOLOGICAL SURVEILLANCE AND HEALTH AT THE FRONTIERS AND MEETING OF FOCAL HEALTH AND ENVIRONMENTAL POINTS (IV FORO ANDINO DE VIGILANCIA EPIDEMIOLOGICA Y SALUD EN LAS FRONTERAS I REUNION DE PUNTOS FOCALES DE SALUD Y AMBIENTE)". 2005.

[<http://www.orasconhu.org/documentos/IVForoAndino07y08Marzo.pdf>]. Accessed December 2020.

[3] Organismo Andino de Salud. Andean Border Health Plan 2016-2018 (Plan Andino de Salud en Fronteras 2016-2018)." [<https://www.orasconhu.org/sites/default/files/PLAN%20ANDINO%20DE%20SALUD%20EN%20FRONTERAS%202016-2018%2014-12-15%20v2.pdf>]. Accessed December 2020.

[6] Pan American Health Organisation. "Action plan for the management of risks in the health sector in the Andean countries (Plan de acción para la gestión del riesgo en el sector salud en los países andinos)".

[https://www.paho.org/disasters/index.php?option=com_content&view=article&id=1739:plan-de-accion-para-la-gestion-del-riesgo-en-el-sector-salud-en-los-paises-andinos&Itemid=1057&lang=en]. Accessed December 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

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

In the midst of the COVID-19 crisis, in the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19), the Ministry of Health implemented the National Strategy for Active Community Surveillance, established officially through DS 4314 of August 27. It aims to strengthen the health system in a permanent way, and not only for COVID-19 through the reorganization and adaptation of services and the increase of virtual and remote modalities (Telemedicine). However, there are no mentions of contact tracing. [1] There are no further evidence in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud) and the Ministry of Health (Ministerio de Salud). [2,3]

[1] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

2.5.1b

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

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

Current Year Score: 0

There is insufficient evidence that Bolivia provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention.

In the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación

y Recuperación post-confinamiento en respuesta a la COVID-19), tele monitoring, tele consultation and tele orientation are offered to persons infected, and follow-up visits, after the first visit. [1] There is no further evidence that other types of supports, such as an economic support are provided in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud) and the Ministry of Health (Ministerio de Salud). [2,3]

[1] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar). There is no such evidence in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud) and the Ministry of Health (Ministerio de Salud). [1,2]

[1] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 0

There is no publicly available evidence that the country 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 a future or active public health emergency.

There is no such evidence in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Ministry of Health (Ministerio de Salud), the Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles), the Ministry of Defense or the Containment, Mitigation and Post-confinement recovery

plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) [1,2,3,4]

[1] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Ministry of Defense. [<https://www.mindef.gob.bo/mindef/node/373>]. Accessed December 2020.

[4] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no evidence in the Ministry of Health (Ministerio de Salud), the Field Epidemiology Training Programme (FETP) or the Field Epidemiology Training Programme for Veterinarians (FETPV) that FETP programmes are available in Bolivia. [1,2] There is evidence of training by the US Centres for Disease Control and Prevention (CDC), but this dates to 1994.[3] On TEPHINET website it is stated that, as Bolivia does not have a FETP programme, a project is in place to introduce the Ministries of Health and National Public Health Institute to the program. There are no further details available. [4] There is no evidence of programmes via the Training Programmes in Epidemiology and Public Health Interventions Network (TEPHINET) or RedSur. [5,6] There is no evidence via the Ministry of Health of instances where citizens have been sent to other countries to participate in training programs. [1]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Centres for Disease Control and Prevention. "CDC in Bolivia". [<https://www.cdc.gov/globalhealth/countries/bolivia/>]. Accessed December 2020.

[3] Centres For Disease Control and Prevention. 1994. "Data for Decision Making Projects". [<https://ftp.cdc.gov/pub/publications/mmwr/other/ddmproj.pdf>]. Accessed December 2020.

[4] TEPHINET. "Developing FETP in South America". [<https://www.tephinet.org/developing-fetp-in-south-america>]. Accessed December 2020.

[5] Training Programmes in Epidemiology and Public Health Interventions Network. [<https://www.tephinet.org/>]. Accessed December 2020.

[6] RedSur. [<http://redsur.org/?s=bolivia>]. Accessed December 2020.

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is evidence of training for animal health professionals on epidemiology but this is not sufficient to prove that these are field programmes. According to a 2008 World Organisation for Animal Health (OIE) report, Instrument for the Evaluation of Rendering of Veterinary Services, there are "sporadic" training sessions on epidemiology, early detection and alert, and public health, for technical and non-technical personnel in the three specialised universities in the country. In some cases, the training programmes are annual, in other cases they are upon request. The training depends on the capacity of each district, and the collaboration of the regional entities such as the Permanent Veterinary Committee of the South Cone (Comite Veterinario Permanente del Cono Sur) and Action Programme MERCOSUR Free of Aftose (Programa de Accion MERCOSUR Libre de Fiebre Aftosa). [1] There is no evidence via the Ministry of Health (Ministerio de Salud), the Field Epidemiology Training Programme or the Field Epidemiology Training Programme for Veterinarians. [2] There is evidence of training by the US Centres of Disease Control and Prevention (CDC), but this dates to 1994. [3] There is no evidence of programmes in the Training Programmes in Epidemiology and Public Health Interventions Network (TEPHINET) or RedSur. [4,5]

- [1] World Organisation for Animal Health (OIE). 2008. "Instrument for the Evaluation of Performance of Veterinary Services (Instrumento para la Evaluaciùn de las Prestaciones de los Servicios Veterinarios)". [http://www.oie.int/fileadmin/Home/eng/Support_to_OIE_Members/docs/pdf/FinalReport-Bolivia.pdf]. Accessed December 2020.
- [2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.
- [2] Centres for Disease Control and Prevention. "CDC in Bolivia". [<https://www.cdc.gov/globalhealth/countries/bolivia/>]. Accessed December 2020.
- [3] Centres for Disease Control and Prevention. 1994. "Data for Decision Making Projects". [<https://ftp.cdc.gov/pub/publications/mmwr/other/ddmproj.pdf>]. Accessed December 2020.
- [4] Training Programmes in Epidemiology and Public Health Interventions Network. [<https://www.tephinet.org/>]. Accessed December 2020.
- [5] RedSur. [<http://redsur.org/?s=bolivia>]. Accessed December 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 1

There is no evidence that Bolivia has an overarching national public health emergency response plan in place that addresses planning for multiple communicable diseases with pandemic potential. However, there are evidence of disease-specific plans in place such as the one to deal with the COVID-19 disease. [1] There is also evidence that the country has a general response plan for public health emergency response, which does not include epidemics/pandemics specifically. [2,3] Law No. 602 on Risk Management (2014), which creates a national emergency response plan, the National Risk Reduction and Disasters and/or Emergency System (Sistema Nacional de Reduccion de Riesgos y Atencion de Desastres y/o Emergencias; SISRADE), includes healthcare and epidemiological vigilance among the basic contents of the SISRADE. There is no evidence on the SISRADE, Law No. 602 or the regulation under Law No. 602, Supreme Decree No. 2342, of specific provisions for dealing with multiple communicative diseases with pandemic potential. [4,5] The National Risk Management Program (Programa Nacional de Gestion de Riesgos), a working paper (2017) developed by the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) to encompass the SISRADE in a wider risk-management plan, does not include specific provisions for health emergencies. [6] There is a National Disaster Vigilance, Control and Attention Programme (Programa Nacional de Vigilancia, Control y Atencion de Desastres) within the Ministry of Health (Ministerio de Salud). The programme stems from Law No. 602, and has the objective of preventing, providing vigilance for, controlling and protecting the health of the population of Bolivia in the face of disasters and/or emergencies. There is no specific mention of protocols for disease with pandemic potential; rather the program refers to health emergencies in general. [7]

[1] Ministry of Health. "National Contingency Plan-COVID-19". [<https://www.asuss.gob.bo/wp-content/uploads/2020/06/2-PLAN-DE-CONTINGENCIA-CAJA-NACIONAL-DE-SALUD-COVID-19-NACIONAL-MARZ.pdf>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[4] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[5] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestiùn de Riesgos)".

[<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

[6] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[7] Ministerio de Salud. "Objective of the National Disaster Vigilance Control and Attention Programme (Objetivo del Programa Nacional de Vigilancia Control y Atencion de Desastres)". [<https://minsalud.gob.bo/about-us/objetivo-del->

programa]. Accessed December 2020.

3.1.1b

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

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

Current Year Score: 0

There is no evidence that Bolivia has a national overarching public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. Instead, the country has a general response plan for public health emergency response in general. [1,2] The National Disaster Vigilance, Control and Attention Program (Programa Nacional de Vigilancia, Control y Atención de Desastres) within the Ministry of Health (Ministerio de Salud) stems from Law no. 602, which dates back to 2014, and the regulation under Law no. 602, the Supreme Decree No. 2342, of specific provisions for dealing with multiple communicative diseases with pandemic potential, also dates to 2014. [3,4] The Vice Ministry of Civil Defence, designated by Law no. 602 to supervise the National Risk Reduction and Disasters and/or Emergency System (Sistema Nacional de Reduccion de Riesgos y Atención de Desastres y/o Emergencias, SISRADE), published a working paper in 2017 on a National Risk Management Programme (Programa Nacional de Gestión de Riesgos), but there is no evidence on the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of the final approval of this plan. [5,6]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[3] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[4] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

[5] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestión de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[6] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

3.1.1c

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

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

Current Year Score: 0

There is no evidence that Bolivia has a national overarching public health emergency response plan in place that addresses planning for multiple communicable diseases with pandemic potential. Instead, the country has a general response plan for public health emergency response. [1,2] There is no evidence of specific considerations for paediatric and other vulnerable populations in Law no. 602 on Risk Management (2014), or the regulation under Law no. 602, Supreme Decree No. 2332, which creates the National Risk Reduction and Disasters and/or Emergency System (Sistema Nacional de Reduccion de Riesgos y Atención de Desastres y/o Emergencias, SISRADE), of specific provisions for dealing with multiple communicative diseases with pandemic potential. Law No. 602 contains a general statement regarding the prioritisation of attention to "vulnerable populations" such as women, girls, boys and the elderly in the face of an emergency or disaster. [3,4] A working paper regarding a National Risk Management Programme (Programa Nacional de Gestión de Riesgos), published by the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) in 2017 also contains a similar general statement. [5] There is no evidence of specific considerations for paediatric and other vulnerable population in the National Disaster Vigilance, Control

and Attention Programme (Programa Nacional de Vigilancia, Control y Atención de Desastres) within the Ministry of Health (Ministerio de Salud), which also stems from Law No. 602. [6]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[3] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[4] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

[5] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestión de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[6] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestión de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. Law No. 602 on Risk Management (2014) indicates private-sector involvement alongside public sector institutions, but does not specify a mechanism or strategy to that effect. [1] Supreme Decree No. 2332 under Law No. 602, which creates the National Risk Reduction and Disasters and/or Emergency System (Sistema Nacional de Reducción de Riesgos y Atención de Desastres y/o Emergencias; SISRADE), indicates that private-sector institutions are part of the National Emergency Plan, to be created within one year of the issuance of the decree. [2] The National Risk Management Programme (Programa Nacional de Gestión de Riesgos), published in 2017, identifies 12 MOUs with different public and private actors as part of the strategy to reduce risk and tend to emergencies. There is no evidence via the Vice Ministry of Defence or the Ministry of Health of the existence of a finished emergency plan of these agreements. [3,4] The regulations above refer to emergencies in general, not necessarily outbreak emergencies. [5]

- [1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.
- [2] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.
- [3] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.
- [4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.
- [5] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 1

There is publicly available evidence that the country has a policy, plan and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) for one disease, specifically for the COVID-19 pandemic.

Indeed, recently, Bolivia has published a coronavirus disease plan, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19), it mentions some NPIs such as social distancing, hand hygiene, cancellation of mass gatherings and the closure of schools, however, it does not include language that says the plan can be used for other diseases. [1] There is no further evidence in the National Risk Management Programme (Programa Nacional de Gestion de Riesgos), the Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles), the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Ministry of Health (Ministerio de Salud), the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) and in two private laboratories, Illimani Laboratorios and Laboratorios Labtek. [2,3,4,5,6,7,8]

[1] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[3] Ministry of Health. "Immunopreventable Diseases Surveillance Manual (Manual de vigilancia de las enfermedades inmunoprevenibles)".

[<https://www.sedeslapaz.gob.bo/sites/default/files/PAI%20Manual%20de%20Vigilancia%20de%20Enfermedades%20Inmunoprevenibles.pdf>]. Accessed December 2020.

[4] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[5] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[6] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[7] Laboratorios Illimani. [<http://www.laboratoriosillimani.com/>]. Accessed December 2020.

[8] LabTek. [<http://www.laboratorioslabtek.com/>]. Accessed December 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 1

There is no evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year, however, there is evidence that Bolivia has published and activated a coronavirus disease plan, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19). [1]

There is no evidence on the World Health Organisation (WHO) International Health Regulations webpage of completed national-level biological threat-focused exercise (either with WHO or separately), nor is there evidence available via the Ministry of Health (Ministerio de Salud). [2,3] There is evidence via the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of plans to conduct an evaluation of "ex post emergency planning", but there is no evidence that this was carried out. [4,5]

[1] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[2] World Health Organisation (WHO). "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Vice Ministerio de Defensa Civil. "Guidelines For Preliminary Draft of Edil Comurade Decree (Lineamientos de Modelo Para Anteproyecto de Decreto Edil Comurade)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/LibroCOMURADE.pdf>]. Accessed December 2020.

[5] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestión de Riesgos)".

[<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

3.2.1b

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

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

Current Year Score: 0

There is no publicly available evidence that Bolivia has in the past year identified a list of gaps and best practices in response (either through an infectious disease response of a biological-threat focused exercise) and developed a plan to improve response capabilities. There is no further evidence of a planned exercise. There is no evidence on the World Health Organisation (WHO) International Health Regulations webpage of past or planned action reviews, nor is there evidence available via the Ministry of Health (Ministerio de Salud). [1,2] There is evidence via the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of plans to conduct an evaluation of "ex post emergency planning", but there is no evidence that this was carried out. [2,3,4]

[1] World Health Organisation (WHO). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. "Guidelines For Preliminary Draft of Edil Comurade Decree (Lineamientos de Modelo Para Anteproyecto de Decreto Edil Comurade)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/LibroCOMURADE.pdf>]. Accessed December 2020.

[4] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestiùn de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country in the past year has undergone a national-level biological threat-focused exercise that has included private sector representatives. Also, there is no evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. There is no evidence on the World Health Organisation (WHO) International Health Regulations webpage of past or planned action reviews, nor is there evidence available via the Ministry of Health (Ministerio de Salud). [1,2] There is evidence via the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of plans to conduct an evaluation of "ex post emergency planning", but there is no evidence that this was carried out. [2,3,4] There is no further evidence in the Simulation Exercise page of the WHO. [5]

[1] World Health Organisation (WHO). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. "Guidelines For Preliminary Draft of Edil Comurade Decree (Lineamientos de Modelo Para Anteproyecto de Decreto Edil Comurade)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/LibroCOMURADE.pdf>]. Accessed December 2020.

[4] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestiùn de Riesgos)".

[<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

[5] World Health Organisation (WHO). "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed December 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Bolivia has in place the National Emergency Operations Committee (Comite de Operaciones de Emergencia Nacional, COEN). The COEN is managed by the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil; VIDECI). It was established by Law No. 602 on Risk Management, which regulates the institutional framework for risk management of disasters and the regulation under Law No. 602, Supreme Decree No. 2332. The latter creates the National Risk Reduction and Disasters and/or Emergency System (Sistema Nacional de Reduccion de Riesgos y Atencion de Desastres y/o Emergencias; SISRADE) and designates VIDECI as the co-ordinator of SISRADE. VIDECI is tasked with coordinating the emergency and relief activities with the departments and regional civil defence, alerting the population, providing transportation, and providing supplies in the event of an emergency. VIDECI also functions as the Technical Secretariat of the COEN. The COEN is activated when different alarms are triggered, among these, health emergencies (article 36) [1] VIDECI responds to the National Council for Risk Reduction and Disasters and/or Emergencies (Consejo Nacional para la Reduccion de Riesgos y Atencion de Desastres y/o Emergencias), created by Law No. 602 to propose, co-ordinate, and execute risk policies and strategies. [1,2] VIDECI in turn leads and coordinates departmental EOCs. [2,3]

[1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[3] Reliefweb. 2011. "Civil Defence activates departmental COEs to prevent disasters due to La Niña".

[<https://reliefweb.int/report/bolivia/defensa-civil-activa-los-coe-departamentales-para-prevenir-desastres-por-efecto-de-la>]. Accessed December 2020.

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil; VIDECI), conducts a drill of the National Emergency Operations Committee (Comite de Operaciones de Emergencia Nacional) at least once per year. There is also not evidence of a requirement to conduct a drill annually.

The National Emergency Operations Committee, which is currently in place in Bolivia, can be activated in case of a health emergency. VIDECI, created by Law No. 602 on Risk Management (2014) to execute the risk reduction policies of the

National Council for Risk Reduction and Disasters and/or Emergencies (Consejo Nacional para la Reducción de Riesgos y Atención de Desastres y/o Emergencias), is required to conduct periodic drills, but does not specify if this must happen at least once per year. [1] According to the working paper for the National Risk Management Program (Programa Nacional de Gestión de Riesgos), VIDECI must conduct simulations as part of the early warning system. [2] The guidelines for municipal emergency operations, issued by VIDECI, also refers to periodic simulations at a municipal level (the document does not specify the periodicity). [3] No further information could be found in the Ministry of Health (Ministerio de Salud). [4]

[1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestión de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. "Comite de Operaciones de Emergencia Municipal."

http://www.defensacivil.gob.bo/web/uploads/images/doc_20171120_155913.pdf. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence to show that the National Emergency Operations Committee (Comite de Operaciones de Emergencia Nacional; COEN) can conduct a co-ordinated emergency response or exercise within 120 minutes of the identification of an emergency. There is no evidence via the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil), which oversees the COEN, or the Ministry of Health (Ministerio de Salud) of emergency response exercises activated within 120 minutes of the identification of an emergency. The National Emergency Operations Committee, which is currently in place in Bolivia can be activated in case of a health emergency. [1,2]

[1] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no public evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event. There is only evidence that in May 2018, the Ministry of Health (Ministerio de Salud) conducted a simulation for rapid response to a "biological risk" in the Airport of Chimore in the Department of Cochabamba, but there is no evidence of co-operation between public health and national security authorities on the exercise. [1] Another exercise was conducted in April 2018 in the Airport Capitan Anibal Arab, in the Department of Pando. The exercise simulated a re-insertion of the measles virus into the country via an airport. [2] Both were conducted by the Ministry of Health in co-ordination with the Administration of Airports and Air Navigation Services (Administración de Aeropuertos y Servicios Auxiliares a la Navegación Aérea), and the Civil Aeronautics Directorate (Dirección de Aeronáutica Civil). [1,2] There is no public evidence that public health and national security authorities have available standard operating procedures for bioterrorism or deliberate biological attacks in the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or the Ministry of Health. [3,4]

[1] Ministerio de Salud. 2018. "Health ministry carried out simulation of biological risk in Chimore Airport, Cochabamba (Salud realizó simulacro por riesgo biológico en el Aeropuerto de Chimoré - Cochabamba)".

[<https://www.minsalud.gob.bo/3263-salud-realizo-simulacro-por-riesgo-biologico-en-el-aeropuerto-de-chimore-cochabamba>]. Accessed December 2020.

[2] Ministerio de Salud. 2018. "Health ministry: Simulation in Pando activated immediate response system in the event of possible reintroduction of measles (Salud: Simulacro en Pando activó sistema de respuesta inmediata ante posible reintroducción del Sarampión)". [<https://www.minsalud.gob.bo/3199-simulacro-pando>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Bolivia has a risk communication plan that outlines how messages will reach populations and sectors with different communications needs. Law No. 602 on Risk Management (2014), which regulates the institutional framework for risk management of disasters, refers to "communication mechanisms" that must be put into effect upon green, yellow, orange, or red alerts. However, it does not explain a strategy to that effect. [1] The working paper for a National Risk Management Programme (Programa Nacional de Gestión de Riesgos) in the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil, VIDECI), does not present a communication strategy. [2] No evidence of a strategy is available via VIDECI or the Ministry of Health (Ministerio de Salud). [3,4] The National Early Disaster Alert System (Sistema Nacional de Alerta Temprana de Desastres) operated within VIDECI, which monitors probable threats and activates prevention and preparation protocols through a platform called Dewetra, does not specify how messages will reach populations with different communications needs. The information is transmitted via fax, email, mobile phone, radiotransmitters and radio diffusers. [5] Finally, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de

Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) does not outlines how messages will reach populations and sectors with different communications needs. [6]

[1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Vice Ministerio de Defensa Civil. "What is SNATD? (Que es SNATD?)". [<http://defensacivil.gob.bo/web/pagina/que-es-snatd.html>]. Accessed December 2020.

[6] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence of a risk communications strategy in place. Law No. 602 on Risk Management (2014), which regulates the institutional framework for risk management of disasters, refers to "communication mechanisms" that must be put into effect upon green, yellow, orange, or red alerts. However, it does indicate that there is a strategy in place. [1] The working paper for a National Risk Management Programme (Programa Nacional de Gestion de Riesgos) of the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil; VIDECI), the entity tasked by Law No 602 to coordinate all aspects of risk management, lists a communications strategy among the necessary steps for the strategy. [2] There is no evidence available via VIDECI, the Ministry of Health or the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) of a strategy. [3,4,5]

[1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

3.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) which designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency.

However, law No. 602 on Risk Management (2014), which regulates the institutional framework for risk management of disasters designates the National Council for Risk Reduction and Attention to Disasters and / or Emergencies (El Consejo Nacional para la Reducción de Riesgos y Atención de Desastres y/o Emergencias -CONARADE), as the highest decision and coordination body. However, it is not specifically related to public health emergency but rather for all types of risks. [1] Bolivia has a Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19), it designates as a primary spokesperson to the public the National Emergency Operations Committee (Comite? de Operaciones de Emergencia Nacional -COEN) .[2] There is no further evidence in the Ministry of Health (Ministerio de Salud) or in the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil; VIDECI). [3,4]

[1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[2] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 1

There is publicly available evidence that Bolivia has used in the past year, media platforms (social media, website updates, etc.) to inform the public about public health emergencies. However, the public health system only shares information through media platforms during active emergencies, but does not regularly utilize online media platforms. In addition, there is no publicly available evidence that these media platforms have been used to dispel rumors, misinformation or disinformation. In the midst of the coronavirus pandemic, the country makes de-identified health surveillance data on covid-19 publicly available via daily reports on government websites. [1] Also, in its Facebook and Twitter page, Bolivia provides

daily reports on the epidemiological situation of the coronavirus disease, sharing information on the number of cases, the measures to implement, etc. [2,3] However, before the coronavirus crisis, Bolivia did not share any information through its social media, its oldest post on Twitter is from October 2020. [3] There is no further evidence in the Ministry of Health (Ministerio de Salud) or in the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil; VIDECI). [4,5]

[1] Vice Ministerio de Defensa Civil. "What is SNATD (Que es SNATD)". [<http://defensacivil.gob.bo/web/pagina/que-es-snatd.html>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[3] Facebook. [<https://www.facebook.com/BivaPad/>]. Accessed December 2020.

[4] Twitter. [<https://twitter.com/videcisinager?lang=en>]. Accessed December 2020.

[5] Twitter. [<https://twitter.com/minsaludbolivia?lang=en>]. Accessed December 2020.

[6] Facebook. [<https://es-la.facebook.com/minsaludbolivia/>]. Accessed December 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no publicly available evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases (in the past two years). Evidence of misinformation or disinformation on infectious diseases could not be found on the website of the Ministry of Health (Ministerio de Salud) or in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA) or in any of the main newspapers of the country, such as La Razón Digital Bolivia or el Diario. (1,2,3,4)

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[3] La Razón. [<https://www.la-razon.com/>] Accessed December 2020.

[4] El Diario. [https://www.eldiario.net/noticias/2021/2021_01/nt210105/]. Accessed December 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 43.83

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: 100.82

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: 8.0

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: 13

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 1

There is no publicly available evidence that the country issued a restriction, without international/bilateral support, on the export/import of medical goods (eg: medicines, oxygen, medical supplies, PPE) due to an infectious disease outbreak. In a

document of the World Trade Organization (WTO), such restrictions are not mentioned. On the contrary, Bolivia has temporarily eliminated the import duties on certain pharmaceutical products, protection and medical supplies due to the coronavirus disease. [1] There is no further evidence of any restriction via the Ministry of Health (Ministerio de Salud), the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA Ministry of External Affairs (Ministerio de Relaciones Exteriores) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [2,3,4,5]

[1] World Trade Organization. 3 July 2020. "Annex".

[https://www.wto.org/english/tratop_e/covid19_e/covid_measures_f.pdf]. Accessed July 2020.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.

[4] Ministerio de Relaciones Exteriores. [<http://www.cancilleria.gob.bo/webmre/>]. Accessed December 2020.

[5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

3.7.1b

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

Yes = 0 , No = 1

Current Year Score: 0

There is evidence that Bolivia has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak. The World Trade Organisation's "COVID-19: Measures affecting trade in goods" list confirms that Bolivia issued "Temporary elimination of import tariffs on wheat and meslin (HS 1001), due to the COVID-19 pandemic", effective 8 April 2020 to 8 April 2022. [1]

[1] World Trade Organisation. June 4, 2021. "COVID-19: Measures affecting trade in goods".

[https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm] Accessed June 24, 2021.

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0 , No = 1

Current Year Score: 0

There is publicly available evidence that in the past year, the country implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. On December 2020, Bolivia restricted the access to the country to Europeans [1]. There is no further evidence of any restriction via the Ministry of Health (Ministerio de Salud), the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA Ministry of External Affairs (Ministerio de Relaciones Exteriores) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras). [2,3,4,5] There is no further evidence in the Disease Outbreak News page of the World Health Organization (WHO). [6]

- [1] Ministry of Health. December 2020. "As of December 25, the entry of passengers from Europe is restricted (A partir del 25 de diciembre se restringe el ingreso de pasajeros procedentes de Europa)". [<https://www.minsalud.gob.bo/5085-a-partir-del-25-de-diciembre-se-restringe-el-ingreso-de-pasajeros-procedentes-de-europa>]. Accessed December 2020.
- [2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.
- [3] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed December 2020.
- [4] Ministerio de Relaciones Exteriores. [<http://www.cancilleria.gob.bo/webmre/>]. Accessed December 2020.
- [5] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.
- [6] World Health Organization (WHO). "Disease Outbreak News". [<https://www.who.int/csr/don/en/>]. Accessed December 2020.

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 159.01

2016

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 155.89

2017

WHO; national sources

4.1.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of a public workforce strategy in place (which has been updated in the past five years) to identify fields where there is an insufficient workforce and strategies to address these shortcomings. The National Statistics Institute (Instituto Nacional de Estadísticas) publishes at least two surveys annually that cover labour market and health force statistics, the Household Survey (Encuesta de Hogares) and the Continuous Employment Survey (Encuesta Continua de Empleo). There is no evidence in these surveys of shortages specific to the healthcare sectors. [1,2] There is no evidence available via the Central Bank of Bolivia (Banco Central de Bolivia), Ministry of Labour, Employment and Social Provision (Ministerio de Trabajo, Empleo y Prevision Social) or the Ministry of Health (Ministerio de Salud) of a public workforce strategy to identify fields where there is an insufficient workforce. [3,4,5] The labour ministry has a programme to promote first-time employment for low-income youngsters, My First Dignified Employment (Mi Primer Empleo Digno). However, there is no evidence of this programme having resulted from a documented strategy to address specific shortages. [6]

[1] Gallardo Alvarado, Horacio. 2016. "Analysis of labour markets and the productive structure using free software (Análisis de los mercados de trabajo y la estructura productiva usando software libre)".

[<https://www.bcb.gob.bo/eeb/sites/default/files/9eeb/archivos/Jueves/304/Análisis%20de%20los%20mercados%20de%20trabajo%20y%20la%20estructura%20productiva%20usando%20software%20libre.pdf>]. Accessed December 2020.

[2] Instituto Nacional de Estadísticas. [<https://www.ine.gob.bo/index.php>]. Accessed December 2020].

[3] Banco Central de Bolivia. [<https://www.bcb.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Trabajo, Empleo y Prevision Social. [<https://www.mintrabajo.gob.bo/>]. Accessed December 2020.

[5] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020

[6] Food and Nutrition Security Programme. "My First Dignified Employment Programme (Programa Mi Primer Empleo Digno)". [<https://plataformacelac.org/en/programa/172>]. Accessed December 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 129

2017

WHO/World Bank; national sources

4.1.2b

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

Yes = 1, No = 0

Current Year Score: 0

Although there is evidence of isolation units in Bolivia, there is insufficient evidence of a unit that is capable of housing patients with highly contagious dangerous pathogens. The Departmental Health Service (Servicio Departamental de Salud), the public healthcare network, has an isolation unit at the Perpetuo Socorro Health Centre in Santa Cruz that consists of a separate room with four beds where patients with highly contagious diseases are placed. There is no mention of whether the facility has separate air conditioning units, entrances where staff can use PPE or other signs of advanced isolation capacity.

[1] There is evidence of the existence of similar isolation units in the Hospital del Norte in La Paz (the largest public hospital in the capital city). The isolation unit is described as capable of housing five patients and includes two isolation rooms. Each bed has a ventilator, an infusion pump for medications, an oxygen unit, and a ventilator to remove secretions from the mouth, throat and trachea. However, there is no indication these are built to house patients with highly contagious diseases. [2] No evidence of other isolation units or biocontainment units is available via the Ministry of Health (Ministerio de Salud). [3] In the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19), there are mentions of isolation rooms, however, it is not possible to specify that these are capable of housing patients with highly contagious dangerous pathogens. [4]

[1] Eldeber.com. May 2018. "Sedes enables isolation rooms, in the face of the aggressiveness of influenza virus (Sedes habilita salas de aislamiento, ante agresividad del virus de la gripe)". [<https://www.eldeber.com.bo/santacruz/Influenza-Sedes-habilita-salas-de-aislamiento-20180503-9579.html>]. Accessed December 2020.

[2] Paginasiete.com. 2017. "Hospital del Norte Opens Remodelled Intensive Therapy Room (Hospital del Norte inaugura remodelada sala de Terapia Intensiva)". [<https://www.paginasiete.bo/sociedad/2017/10/3/hospital-norte-inaugura-remodelada-sala-terapia-intensiva-154418.html>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

4.1.2c

Does the country meet one of the following criteria?

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

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years, nor 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. There is no such evidence in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), the Ministry of Health (Ministerio de Salud), the Ministry of Defense or the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) [1,2,3,4]

[1] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed April 2021.

[2] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed April 2021.

[3] Ministry of Defense. [<https://www.mindef.gob.bo/mindef/node/373>]. Accessed April 2021.

[4] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de

Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".
[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed April 2021.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 2

There is publicly available evidence that 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.

Bolivia's National Procurements System (Sistema de Contrataciones Estatales; SICOES) covers the health and agriculture ministries, and can both be accessed online and used to purchase laboratory equipment. [1,2] The National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud; INLASA) also uses the SICOES for its procurement, as do all state-owned health and pharmaceutical institutions. [3] Additionally, the Ministry of Health can purchase lab medication, equipment and medical supplies directly via the Single National Supply System (Sistema Nacional Unico de Sumunistro; SNUS). Supreme Decree No. 1008 (2011) on the Regulation for the Selection of Providers and Prices, and Direct Purchases of Medication and Essential Medical Devices (Reglamento para la Seleccion de Proveedores y Precios, y Compra Directa de Medicamentos y Dispositivos Medicos Esenciales) of 2011 mandates a priority purchases program for medication, medical equipment and medical supplies contained in the lists of essential medications and essential medical equipment, both of which are updated and published by the health ministry. The lists also include laboratory equipment. [3,4,5] There is no further evidence in the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras).[6]

[1] Ministerio de Economía y Finanzas Públicas. "State Contracts System (Sistema de Contrataciones Estatales)". [https://www.oas.org/juridico/conf_present_quinteros.pdf]. Accessed December 2020.

[2] Sistema de Contrataciones Estatales. [<https://www.sicoes.gob.bo/portal/index.php>]. Accessed December 2020.

[3] Constitutional President of Bolivia. Supreme Decree No. 1008 of 2012.

[<https://www.minsalud.gob.bo/images/Descarga/decreto1008/0-Decreto-Supremo-1008.pdf>]. Accessed December 2020.

[4] Ministerio de Salud. "Regulation of the Single National Supply System (Reglamento del Sistema Nacional Unico de Suministro)". [<http://apps.who.int/medicinedocs/documents/s18841es/s18841es.pdf>]. Accessed December 2020.

[5] Ministerio de Salud. "Regulation for the Selection of Suppliers and Prices, and Direct Purchase of Medicines and Essential Medical Devices (Reglamento para la Seleccion de Proveedores y Precios, y Compra Directa de Medicamentos y Dispositivos Medicos Esenciales)". 2011. [<https://www.minsalud.gob.bo/images/Descarga/decreto1008/Reglamento-DS-1008-RM-1647.pdf>]. Accessed December 2020.

[6] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed April 2021.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 2

There is publicly available evidence that Bolivia maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency.

Bolivia has a Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS), responsible for the supply and storage of essential drugs, medical supplies, laboratory reagents and complementary health products, ensuring their availability in cases of national disasters and emergencies. It is specified that the Central Supply and Health Supplies domestically maintains medical supplies that can be used during a public health emergency.[1]

Also, concerning MCM, Bolivia has a system in place to guarantee rapid access to medical countermeasures in the event of an emergency. The Regulation of the Single National Supply System (Sistema Nacional Unico de Suministro; SNUS). Supreme Decree n°26873 indicates that the SNUS uses the methodology of the System of Management of Humanitarian Supply (Sistema de Gestion de Suministros Humanitarios) to control the reception, storage and distribution of medical stockpiles in cases of emergencies, as well as informing the national and subnational government of the management of supplies. The SNUS Regulation indicates that the Subsystem of Logistic Administration of Medication and Supply (Subsistema de Administracion Logistica para Medicamentos e Insumos), in its "disasters" component, established the logistical aspect of the management of humanitarian donations in situations of emergencies or disasters, including planning, needs evaluation, warehousing, distribution, control and information. [2] Both domestically maintains MCMs and it is specified that these can be used during a public health emergency.

No further information, specifically related to PPE, could be found via the Ministry of Health (Ministerio de Salud) or Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil). [3,4] Finally, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) does not mention such a stockpile. [5]

[1] Platform of Access to Public Information. "Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS)". [<http://www.miplataforma.gob.bo/es/control-social/entidad/15/1>]. Accessed December 2020.

[2] Ministerio de Salud. "Regulation of the Single National Supply System (Reglamento del Sistema Nacional Unico de Suministro)". [https://www.sissub.com.bo/images/docs/gestion2002/decretos/DECRETO_SUPREMO_26873.pdf]. Accessed December 2020.

[3] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[5] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

4.2.2b

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

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

Current Year Score: 1

There is publicly available evidence that the country has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency but insufficient evidence of what is included. There is a Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS), responsible for the supply and storage of essential drugs, medical supplies, laboratory reagents and complementary health products, ensuring their availability in cases of national disasters and emergencies. It clearly specifies that these can be used during a public health emergency although no further detail is provided [1] No further evidence could be found via the Ministry of Health (Ministerio de Salud) or Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) . [2,3] Finally, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) does not mention such a stockpile. [4]

[1] Platform of Access to Public Information. "Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS)". [<http://www.miplataforma.gob.bo/es/control-social/entidad/15/1>]. Accessed December 2020.

[2] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[4] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available 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. Such evidence could not be found in the Ministry of Health (Ministerio de Salud), Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil), in the National Health Laboratory Institute (Instituto Nacional de Laboratorios de Salud), or the Ministry of Defense . [1,2,3,4] There is no such mention in the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19). [5]

[1] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[3] Instituto Nacional de Laboratorios de Salud. [<https://www.inlasa.gob.bo/servicios/analisis-de-laboratorios/unidad-de-diagnostico/>]. Accessed April 2021.

[4] Ministry of Defense. [<https://www.mindef.gob.bo/mindef/node/373>]. Accessed April 2021.

[5] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)".

[<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed April 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 publicly available evidence that the country has a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency or a plan/mechanism to procure medical supplies.

Bolivia has a Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS), responsible for the supply and storage of essential drugs, medical supplies, laboratory reagents and complementary health products, ensuring their availability in cases of national disasters and emergencies. However, on the website a specific plan/agreement to leverage domestic manufacturing capacity to produce medical supplies for national use during a public health emergency could not be found. [1] On the other hand, Bolivia has a system in place to guarantee rapid access to medical stockpiles in the event of emergency. The Regulation of the Single National Supply System (Sistema Nacional Unico de Suministro; SNUS) indicates that the SNUS uses the methodology of the System of Management of Humanitarian Supply (Sistema de Gestion de Suministros Humanitarios) to control the reception, storage and distribution of medical countermeasures in cases of an emergency, as well as informing the national and subnational government of the management of supplies. The SNUS Regulation indicates that the Subsystem of Logistic Administration of Medication and Supply (Subsistema de Administracion Logistica para Medicamentos e Insumos), in its "disasters" component, established the logistical aspect of the management of humanitarian donations in situations of emergencies or disasters, including planning, needs evaluation, warehousing, distribution, control and information. [2]

No further evidence could be found in the Single National Supply System (Sistema Nacional Unico de Suministro; SNUS), which is in charge of the control, the reception, storage and distribution of medical stockpiles ; the Antibiotic National Policy (Política Nacional de Medicamentos) or via the Ministry of Health (Ministerio de Salud) or Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) . [3,4,5,6] Finally, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) does not mention such a plan/agreement. [7]

[1] Platform of Access to Public Information. "Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS)". [<http://www.miplataforma.gob.bo/es/control-social/entidad/15/1>]. Accessed December 2020.

[2] Ministerio de Salud. "Regulation of the Single National Supply System (Reglamento del Sistema Nacional Unico de Suministro)". <http://apps.who.int/medicinedocs/documents/s18841es/s18841es.pdf>. Accessed December 2020.

[3] Ministerio de Salud. "Regulation of the Single National Supply System (Reglamento del Sistema Nacional Unico de Suministro)". [https://www.sissub.com.bo/images/docs/gestion2002/decretos/DECRETO_SUPREMO_26873.pdf]. Accessed December 2020.

[4] Ministry of Health. "Antibiotic National Policy (Política Nacional de Medicamentos)". [https://www.agemed.gob.bo/reg-far/doc_reg_far/T-N-0-RM-0034-PNM.pdf]. Accessed December 2020.

[5] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[6] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[7] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf]. Accessed December 2020.

4.2.3b

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no publicly available evidence that the country has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency, or a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. Bolivia has a Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS), responsible for the supply and storage of essential drugs, medical supplies, laboratory reagents and complementary health products, ensuring their availability in cases of national disasters and emergencies. However, on the website, a specific plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency could not be found. [1] Nor could it be found in the Single National Supply System (Sistema Nacional Unico de Suministro; SNUS), which is in charge of the control, the reception, storage and distribution of medical stockpiles; the Antibiotic National Policy (Política Nacional de Medicamentos) or via the Ministry of Health (Ministerio de Salud) or Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil). [2,3,4,5] Finally, the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19) does not mention such a plan/agreement. [6]

[1] Platform of Access to Public Information. "Central Supply and Health Supplies (Centro de Abastecimiento y Suministro de Salud-CEASS)". [http://www.miplataforma.gob.bo/es/control-social/entidad/15/1]. Accessed December 2020.

[2] Ministerio de Salud. "Regulation of the Single National Supply System (Reglamento del Sistema Nacional Unico de Suministro)". [https://www.sissub.com.bo/images/docs/gestion2002/decretos/DECRETO_SUPREMO_26873.pdf]. Accessed December 2020.

[3] Ministry of Health. "Antibiotic National Policy (Política Nacional de Medicamentos)". [https://www.agemed.gob.bo/reg-far/doc_reg_far/T-N-0-RM-0034-PNM.pdf]. Accessed December 2020.

[4] Ministry of Health. [https://www.minsalud.gob.bo/]. Accessed December 2020.

[5] Vice Ministerio de Defensa Civil. [http://www.mindef.gob.bo/mindef/node/709]. Accessed December 2020.

[6] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf]. Accessed December 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that the country has a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics and diagnostics). Although there is evidence of guidelines for good dispensing practices, there is no evidence of a plan outlining how medicines will be dispensed in an emergency. [1] The Central Supply and Health Supplies Centre (Central de Abastecimiento y Suministros de Salud; CEASS), created by the Regulation of the Single National Supply System (Sistema Nacional Unico de Suministro), is the entity in charge of the storage, commercialisation, supply, donation, and distribution of medications and medical and laboratory supplies, both for regular health services, and during times of national disasters and emergencies. However, this plan does not mention the last mile of delivery or how medicines will reach individuals during an emergency. [1,2] There is no evidence available via the CEASS, the Ministry of Health (Ministerio de Salud) or the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of a system or plan for dispensing. [3,4]

[1] Ministry of Health. "Good Dispensing Practices". [<http://oras-conhu.org/Data/20158353857.pdf>]. Accessed December 2020. [1] Ministerio de Salud. "Regulation of the Single National Supply System (Reglamento del Sistema Nacional Unico de Suministro)". [<http://apps.who.int/medicinedocs/documents/s18841es/s18841es.pdf>]. Accessed December 2020.

[2] Central de Abastecimiento y Suministros de Salud. 2016. "Summary of Strategic Objectives (PEI) and Management of Centre of Supply and Health Supplies (Resumen Objetivos Estrategicos (PEI) y de Gestion Central de Abastecimiento y Suministros de Salud)". [<http://www.ceass.gob.bo/ceassweb/wp-content/uploads/2016/11/03-OBJETIVOS-ESTRATEGICOS-PEI.pdf>]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020

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

4.3.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of a plan to receive personnel from other countries, although there are agreements in place to both support and receive support from other countries during the event of an emergency. Bolivia is part of the Andean Health Organisation (Organismo Andino de Salud; ORASCONHU), alongside Chile, Colombia, Ecuador, Peru and Venezuela. ORASCONHU countries co-operate in the Andean Plan of Health in Frontiers (Plan Andino de Salud en las Fronteras). ORASCONHU's Andean Plan for the Risk Management of Health Disasters (Plan Andino para la Gestion de Riesgos de Desastres) includes a strategic component of mutual assistance between member countries in the event of emergencies,

which accounts for the formation of multidisciplinary teams of emergency response at a regional level. However, there is no mention in the agreement of how these teams will be received or how their arrival and movement throughout the country will be facilitated. [1,2] There is no further evidence via the Ministry of Health (Ministerio de Salud) or the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of agreements or public plans to receive health personnel. [3,4]

[1] Organismo Andino de Salud (ORASCONHU). "Andean Border Health Plan 2016-2018 (Plan Andino de Salud en Fronteras 2016-2018)".

[<https://www.orasconhu.org/sites/default/files/PLAN%20ANDINO%20DE%20SALUD%20EN%20FRONTERAS%202016-2018%2014-12-15%20v2.pdf>]. Accessed December 2020.

[2] Pan American Health Organisation (PAHO). "Action plan for risk management in the health sector in the Andean countries (Plan de acción para la gestión del riesgo en el sector salud en los países andinos)".

[https://www.paho.org/disasters/index.php?option=com_content&view=article&id=1739:plan-de-accion-para-la-gestion-del-riesgo-en-el-sector-salud-en-los-paises-andinos&Itemid=1057&lang=en]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 4

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 89.8

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: 123.3

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 via the Ministry of Health (Ministerio de Salud) or the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) that the government has issued legislation to provide prioritised healthcare services to healthcare workers who become sick while working. [1,2] The country's former healthcare system included coverage for "professional risks", but was recently replaced by the free-to-access Sistema Unico de Salud, a universal healthcare system launched in October 2018. [2,3,4] There is no evidence in Law No. 602 on Risk Management (2014) or the regulation under Law No. 602, Supreme Decree No. 2332, which creates a National Emergency Plan, of prioritised healthcare services to health workers. [5,6]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[3] Ledo, Carmen. 2011. "The Health System of Bolivia." [http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S0036-36342011000800007]. Accessed December 2020.

[4] Ministerio de Salud. 2018. "Bolivia approves its new health system (Bolivia aprueba su nuevo Sistema ?nico de Salud, Universal y Gratuito)". [<https://www.minsalud.gob.bo/3528-bolivia-aprueba-sus>]. Accessed December 2020

[5] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[6] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gesti?n de Riesgos)".

[<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence available via the Ministry of Health (Ministerio de Salud) or Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) of a system in place for public health officials and healthcare workers to communicate during a public health emergency. [1,2] Neither is there evidence of such a system in Law No. 602 on Risk Management (2014), which regulates the institutional framework for risk management of disasters through prevention, mitigation and recovery, or the regulation under Law No. 602, Supreme Decree No. 2342. [3,4] There is no evidence in a working paper on a National Risk Management Programme (Programa Nacional de Gestion de Riesgos) under the Vice Ministry of Civil Defence (VIDECL); VIDECL is the entity tasked by law with co-ordinating all aspects of risk management. [5] There is no further evidence in the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19). [6]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[3] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[4] Council of Ministers, Plurinational State of Bolivia (Consejo de Ministros, Estado Plurinacional de Bolivia). Supreme Decree No. 2342. "Regulation of Law No. 602 on Risk Management (Reglamento de la Ley 602 Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

[5] Ministerio de Defensa. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos Vice)". [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[6] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the system for public health officials and healthcare workers to communicate during an emergency encompasses healthcare workers in both the public and private sector. No evidence is available via the Ministry of Health (Ministerio de Salud), Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or the National Disaster Vigilance, Control and Attention Programme (Programa Nacional de Vigilancia, Control y Atención de Desastres) within the Ministry of Health (Ministerio de Salud) of a system in place for public health officials and healthcare workers to

communicate during a public health emergency. [1,2,3] The National Disaster Vigilance, Control and Attention Programme launched a real-time application in 2017 for communication and notification of disasters. Edan Salud Bolivia, which was developed in collaboration with the World Health Organisation (WHO), can be downloaded to any smartphone or mobile device, and aims to ease the flow of communication and reporting of disasters between the population and healthcare officials, but there is no evidence that healthcare workers can use the platform to communicate with each other. [4] There is no further evidence in the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19). [5]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[3] Ministerio de Salud. "National Disaster Vigilance, Control and Attention Programme (Programa Nacional de Vigilancia Control y Atención de Desastres)". [<https://minsalud.gob.bo/about-us/objetivo-del-programa>]. Accessed December 2020.

[4] Pan American Health Organisation (PAHO). 2018. "Medical staff will be able to respond quickly after real-time notification of emergencies and/or disasters that happen in Bolivia (Personal médico podrá dar respuesta rápida tras notificar en tiempo real emergencias y/o desastres que sucedan en Bolivia)". [https://www.paho.org/bol/index.php?option=com_content&view=article&id=2116:personal-medico-podra-dar-respuesta-rapida-tras-notificar-en-tiempo-real-emergencias-y-o-desastres-que-sucedan-en-bolivia&Itemid=481]. Accessed December 2020.

[5] Ministry of Health. "Containment, Mitigation and Post-confinement recovery plan in response to COVID-19 (Plan de Contención, Mitigación y Recuperación post-confinamiento en respuesta a la COVID-19)". [<https://www.boliviasegura.gob.bo/archivos/plandecontencion.pdf>]. Accessed December 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that the national public health system monitoring for and tracking the number of health care associated infections that take place in healthcare facilities. The Ministry of Health (Ministerio de Salud) issued a regulation in 2014 to develop epidemiological vigilance in all levels of the public healthcare system, the National Regulation for Healthcare Associated Infections (Norma Nacional de Infecciones Asociadas a la Atención en Salud), which aims to prevent the spread of healthcare associated infections to patients and healthcare providers and staff by implementing prevention and control. Part of the application of the norm includes training across the different parts of the healthcare system, and the evaluation and monitoring of hospitals. [1] In 2016 the health ministry conducted training, evaluation and monitoring as per the regulation in several public hospitals including the Roberto Galindo Hospital in the capital city, La Paz. However, there is no public information that there is ongoing monitoring for or tracking of health care associated infections. [2,3]

[1] Ministerio de Salud. 2014. "Ministry of Health presents National Regulation for Healthcare Associated Infections (IAAS) (Ministerio de Salud presenta Norma Nacional de Infecciones Asociadas a la Atención en Salud (IAAS))".

[<https://www.minsalud.gob.bo/225-ministerio-de-salud-presenta-norma-nacional-de-infecciones-asociadas-a-la-atencion->

en-salud-iaas]. Accessed December 2020.

[2] Ministerio de Salud. 2016. "Hospital Professionals are trained in the Approach of Infections Associated with Health Care (Profesionales de Hospitales son Capacitados en el Abordaje de Infecciones Asociadas a la Atención en Salud)".

[<https://www.minsalud.gob.bo/1457-profesionales-de-hospitales-son-capacitados-en-el-abordaje-de-infecciones-asociadas-a-la-atencion-en-salud>]. Accessed December 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence of a national requirement for ethical review before beginning a clinical trial. There is evidence that ethical review procedures exist, but not that they are required for clinical trials. Bolivia's Code of Medical Ethics and Medical (Codigo de Etica y Deontologia Medica), a set of norms regulating medics and their relationships with patients and society, indicates that all medical research should be approved by the "research committee" of the hospital or centre in which it is conducted. It also indicates that protocols must be "inspired by ethical principles". There are no references to clinical trials. [1,2] Although the UN Educational, Scientific and Cultural Organisation (UNESCO) notes that Bolivia has a Research Ethics Committee under its National Bioethics Committee, there is no public evidence via the Ministry of Health (Ministerio de Salud) about a requirement for ethics approval. [3,4]

[1] Ministerio de Salud. "Code of Medical Ethics and Deontology (Codigo de Etica y Deontologia Medica)".

[<https://www.minsalud.gob.bo/images/Documentacion/normativa/CODIGODEETICAYDEONTOLOGIAMEDICA.pdf>]. Accessed December 2020.

[2] Zwareva Mashiri, Elizabeth. 2010. "Biomedical and Psychological Scientific Ethical Review Committees in Bolivia."

[https://scielo.conicyt.cl/scielo.php?script=sci_arttext&pid=S1726-569X2010000100012]. Accessed December 2020.

[3] UNESCO. "National Bioethics Committee of Bolivia (Comite Nacional de Bioetica de Bolivia)".

[<http://www.unesco.org/new/es/office-in-montevideo/social-and-human-sciences/bioethics/network-of-lac-national-bioethics-committees/nbc-of-bolivia/>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

4.7.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of an expedite process for approving clinical trials for unregistered medical countermeasures in Bolivia's Code of Medical Ethics and Deontology (Codigo de Eticay Deontologia Medica), a set of norms regulating medics and their

relationships with patients and society. [1,2] Neither is evidence available via the Ministry of Health (Ministerio de Salud). [3]

[1] Ministerio de Salud. "Code of Medical Ethics and Deontology (Codigo de Etica y Deontologia Medica)". [https://www.minsalud.gob.bo/images/Documentacion/normativa/CODIGODEETICAYDEONTOLOGIAMEDICA.pdf]. Accessed December 2020.

[2] Zwareva Mashiri, Elizabeth. 2010. "Biomedical and Psicological Scientific Ethical Review Committees in Bolivia." [https://scielo.conicyt.cl/scielo.php?script=sci_arttext&pid=S1726-569X2010000100012]. Accessed December 2020.

[3] Ministerio de Salud. [https://www.minsalud.gob.bo/]. Accessed December 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence of a government agency responsible for approving new medical countermeasures for humans. The State Medication and Technology Agency (Agencia Estatal de Medicamentos y Tecnologías de Salud; AGEMED) is the government medication agency within the Ministry of Health (Ministerio de Salud) that enforces pharmaceutical vigilance and the correct use of pharmaceuticals. However, there is no clear evidence in the objectives of AGEMED or the National Medication Policy (Politica Nacional del Medicamento), a document mandated by Law No. 1737 of 1996 that lays out the guidelines, mechanisms, facilitation and promotion of medication in the country, and of a system for the approval of new drugs, devices, vaccines or other types of medical countermeasures. [1,2] There is also no evidence via the health ministry of any other regulatory agency with specific responsibilities for approving new countermeasures. [3]

[1] Agencia Estatal de Medicamentos y Tecnologías de Salud. [http://agemed.minsalud.gob.bo/unimed/index-2.htm]. Accessed December 2020.

[2] Ministerio de Salud. 2003. "National Medication Policy (Politica Nacional de Medicamentos). [http://agemed.minsalud.gob.bo/reg-far/0.htm#]. Accessed December 2020.

[3] Ministerio de Salud. [https://www.minsalud.gob.bo/]. Accessed December 2020.

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. The State Medication and Technology Agency (Agencia Estatal de Medicamentos y Tecnologías de Salud; AGEMED) is the government medication agency within the Ministry of Health (Ministerio de Salud) that enforces pharmaceutical vigilance and the correct use of pharmaceuticals. There is no evidence of an expedited process for countermeasures approval in the objectives of AGEMED; neither is evidence via the Ministry of Health (Ministerio de Salud). [1,2]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Agencia Estatal de Medicamentos y Tecnologías de Salud. [<http://agemed.minsalud.gob.bo/unimed/index-2.htm>]. Accessed December 2020.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

Are epidemics and pandemics integrated into the national risk reduction strategy or is there a standalone national disaster risk reduction strategy for epidemics and pandemics?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that epidemics and pandemics are integrated into the national risk reduction strategy or that there is a standalone national disaster risk reduction strategy for epidemics and pandemics. Law No. 602 on Risk Management (2014), which regulates the institutional framework for risk management of disasters through prevention, mitigation and recovery, includes biological threats among the types of threats or risks that it considers. Biological threats are defined as exposure to pathogens, micro-organisms, toxins and bioactive substances that can cause death, disease or other health impacts. However, this law only mentions risk management and not risk reduction. [1] In addition, there is a National Risk Management Programme (Programa Nacional de Gestion de Riesgos) run within the Vice Ministry of Civil Defence, which is the entity tasked to co-ordinate all aspects of risk management under Law No. 602, Supreme Decree No. 2332. [2,3,4] The programme, which still only exists in the form of a working paper, does not specify risk reduction strategies for pandemics or diseases. [4] There is no further evidence in the Ministry of Health (Ministerio de Salud) or Vice Ministry of Civil Defence (Vice

Ministerio de Defensa Civil) . [5,6]

[1] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestion de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[2] Consejo de Ministros, Estado Plurinacional de Bolivia. 2014. Decreto Supremo No. 2332, Reglamento de la Ley 602 Gestiùn de Riesgos. [<http://extwprlegs1.fao.org/docs/pdf/bol145341.pdf>]. Accessed December 2020.

[3] Ministerio de Defensa. [<http://www.mindef.gob.bo/mindef/>]node/709. Accessed December 2020.

[4] Vice Ministerio de Defensa Civil. 2017. "National Risk Management Programme (Programa Nacional de Gestion de Riesgos)". [<http://www.defensacivil.gob.bo/web/uploads/pdfs/PNGRD2017.pdf>]. Accessed December 2020.

[5] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[6] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0

There is no publicly available evidence that the country has cross-border agreements, protocols, or MOUs with neighboring countries, or as part of a regional group, with regards to public health emergencies.

Bolivia is part of several regional agreements with regards to public health, however they do not specifically deal with public health emergencies. The Ministry of Health (Ministerio de Salud) is a member of the Andean Health Organism (Organismo Andino de Salud; ORASCONHU), alongside Chile, Colombia, Ecuador, Peru and Venezuela. ORASCONHU countries co-operate in the Andean Plan of Health in Frontiers (Plan Andino de Salud en las Fronteras; PASAFRO). PASAFRO includes epidemiological vigilance, access to medication, and other co-operation in elaborating health policies of common interests and in frontiers. Bolivia is also part of ORASCONHU's Andean Plan for the Risk Management of Health Disasters (Plan Andino para la Gestion de Riesgos de Desastres), made up of the disaster co-ordinating agencies of the same members. All these plans mention routine surveillance and cooperation but none mention public health emergencies. [1,2,3,4] There is no further evidence in the yearly report of the ORASCONHU of 2019, in the Ministry of Health or in the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil). [5,6,7]

[1] Organismo Andino de Salud. [<http://orasconhu.org/portal/presentaci%C3%B3n>]. Accessed December 2020.

[2] Ministerio de Salud. 2015. "Epidemiological Review (Revista Epidemiologica)". [https://www.minsalud.gob.bo/images/Libros/epidemiologia/Revista-Epidemiologica_opt.pdf]. Accessed December 2020.

[3] Organismo Andino de Salud. "Andean Border Health Plan 2016-2018 (Plan Andino de Salud en Fronteras 2016-2018)". [<https://www.orasconhu.org/sites/default/files/PLAN%20ANDINO%20DE%20SALUD%20EN%20FRONTERAS%202016-2018%2014-12-15%20v2.pdf>]. Accessed December 2020.

[4] Pan American Health Organisation. "Action plan for the management of risks in the health sector of the Andean countries (Plan de acciùn para la gestiùn del riesgo en el sector salud en los países andinos)".

[https://www.paho.org/disasters/index.php?option=com_content&view=article&id=1739:plan-de-accion-para-la-gestion-del-

riesgo-en-el-sector-salud-en-los-paises-andinos&Itemid=1057&lang=en]. Accessed December 2020.

[5] ORASCONHU. 2019. "Management report (Informe de gestión)".

[<http://www.orasconhu.org/portal/sites/default/files/file/webfiles/doc/INFORME%20DE%20GESTION%202019%20alta.pdf>].

Accessed December 2020.

[6] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[7] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

5.2.1b

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

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

Current Year Score: 0

There is insufficient evidence that Bolivia has cross-border agreements, protocols or MOUs with neighbouring countries, or as part of a regional group, with regards to animal health emergencies. The Ministry of Agriculture (Ministerio de Agricultura) is a member of the Permanent Veterinarian Committee of the South Cone (Comite Veterinario Permanente del Cono Sur), an institution created to establish joint actions to guarantee the commercial common interests regarding regional animal health. The CVP has several working committees, including for aphtose fever, bird flu, bovine spongiform encephalopathy, and food and safety. Bolivia is a member of every committee. The other member countries are Brazil, Argentina, Chile and Paraguay. It is not clear, however, whether animal health emergencies are included in this agreement.[1] There is no further evidence in the Ministry of Health. [2]

[1] Comite Veterinario Permanente del Cono Sur. [<http://www.cvpconosur.org/>]. Accessed December 2020.

[2] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1, No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

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

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

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

Current Year Score: 0

2021

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

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

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

5.4.1a

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

5.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the country has allocated national funds to improve capacity to address epidemic threats within the past three years. There is only evidence that in the midst of the COVID-19 crisis, Bolivia has invested finances to improve capacity to address this pandemic. In the Containment, Mitigation and Post-confinement recovery plan in response to COVID-19, there is evidence that Bolivia has already invested finances for the acquisition of essential intensive care equipment. However, there is no evidence of investments to expand capacity against future threats.[1] There is also evidence that, in 2017, the Joint Integrated Management Prevention and Control Strategy for Dengue, Chikungunya, and Zika (Estrategia de Gestión Integrada de Prevención y Control de Dengue, Chikungunya y Zika) was executed, as stated in the Ministry of Health's accountability statement for 2017. Bs5.5m (US\$796,000) were spent on the project in 2017. However, there is no evidence of investments to expand capacity against future threats. [2] There is no further evidence in the Ministry of Health (Ministerio de Salud), the Ministry of Rural Development or in the national budget of 2019 [3,4,5]

[1] Ministerio de Salud. 2015. "Bolivia donates US\$1m to the United Nations for the struggle against Ebola (Bolivia Dona 1 Millón de Dólares a Las Naciones Unidas Para La Lucha Contra El …bola)".

[<https://www.minsalud.gob.bo/index.php/391-bolivia-dona-1-millon-de-dolares-a-las-naciones-unidas-para-la-lucha-contra-el-ebola>]. Accessed December 2020.

[2] Estado Plurinacional de Bolivia. 2017. "Public hearing of final accounts (Audiencia Publica de Rendicion de Cuentas Final)".

[https://www.minsalud.gob.bo/images/Descarga/rendicion/RENDICION_CUENTAS-24-01-2018.pdf]. Accessed December 2020.

[3] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[4] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

[5] Ministerio de Economía y Finanzas Públicas. 2019. "Presupuesto Ciudadano".

[https://medios.economiafinanzas.gob.bo/MH/documentos/DC_interes/2019/PRESUPUESTO-CIUDADANO-PGE_-_2019.pdf]. Accessed December 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 0

Although there is evidence that Bolivia has access to special financing emergency mechanisms, there is no evidence that these can be used for public health emergencies. Bolivia is eligible for funds from the UN Office for the Co-ordination of Humanitarian Affairs (OCHA), which has the mandate of improving the UN's health response to complex emergencies and natural disasters, not health emergencies. OCHA has channelled funds to Bolivia through the Emergency Cash Grant, the Central Emergency Response Fund, and Flash Appeal. [1] Bolivia graduated from the World Bank's International Bank for Reconstruction and Development in 2017, but will receive transitional support on an exceptional basis. [2] The Bolivian Red Cross is eligible for funding from the International Federation of Red Cross and Red Crescent Societies (IFRC). The IFRC sent funding under this mechanism in 2012, along with technical assistance. [3] There is no evidence that Bolivia has received financing from the World Bank Pandemic Emergency Financing Facility. There is no evidence in the Ministry of Health (Ministerio de Salud) or the Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or Law No. 602 on Risk

Management (2014). [4,5,6] However, on an ad-hoc basis, Bolivia receives funds to be used for public health emergencies. In 2020, the World Bank supported Bolivia in its fight against COVID-19 with USD\$ 170 million. [7]

[1] United Nations. "Office for the co-ordination of Humanitarian Affairs (Oficina de Coordinación de Asuntos Humanitarios)". [<http://www.nu.org.bo/agencia/oficina-de-coordinacion-de-asuntos-humanitarios/>]. Accessed December 2020.

[2] International Development Association. "Borrowing Countries". [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed December 2020.

[3] International Federation of Red Cross and Red Crescent Societies. 2012. "National Plan launched to assist thousands affected by flooding across Bolivia." [<https://www.ifrc.org/en/news-and-media/news-stories/americas/bolivia/national-plan-launched-to-assist-thousand-affected-by-flooding-across-bolivia-/>]. Accessed December 2020.

[4] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Vice Ministerio de Defensa Civil. [<http://www.defensacivil.gob.bo/web/site/index.html>]. Accessed December 2020.

[6] Plurinational State of Bolivia (Estado Plurinacional de Bolivia). Ley No. 602 of 2014. "On Management of Risks (de Gestión de Riesgos)". [<http://extwprlegs1.fao.org/docs/pdf/bol139286.pdf>]. Accessed December 2020.

[7] World Bank. "The World Bank supports the response to the COVID-19 emergency in Bolivia with US \$ 170 million (El Banco Mundial apoya con US\$170 millones la respuesta a la emergencia por el COVID-19 en Bolivia)". [<https://www.bancomundial.org/es/news/press-release/2020/05/08/el-banco-mundial-apoya-con-us170-millones-la-respuesta-a-la-emergencia-por-el-covid-19-en-bolivia>]. Accessed December 2020.

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

5.5.4a

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

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

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

Current Year Score: 0

There is insufficient publicly available evidence that senior leaders (president or ministers), in the past three years, have made a public commitment to improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. There is no evidence that the country has made a commitment to support other countries to improve capacity to address epidemic threats by providing financing or support. There is, however, evidence of statements supporting domestic response efforts. In the midst of the COVID-19 crisis, the president of the country, Jeanine Añez announced a 10% increase in the budget dedicated to public health to strengthen the health system in the face of the pandemic. [1] There is no evidence of any commitment to support other countries via the Ministry of Health (Ministerio de Salud), Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or the Ministry of External Affairs (Ministerio de Relaciones Exteriores) [2,3,4]

[1] Ministry of Health. "Government announces 10% increase to the Public Health budget in 2021 (Gobierno anuncia incremento de 10% al presupuesto de la Salud Pública en la gestión 2021)". [<https://www.minsalud.gob.bo/4484-gobierno-anuncia-incremento-de-10-al-presupuesto-de-la-salud-publica-en-la-gestion-2021>]. Accessed December 2020.

[2] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[3] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[4] Ministerio de Relaciones Exteriores. [<http://www.cancilleria.gob.bo/webmre/>]. Accessed December 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

Current Year Score: 1

There is evidence that Bolivia has invested donor funds to improve its own domestic capacity to address epidemic threats in the past three years.

There is evidence via the Global Health Security Funding Tracker that Bolivia has invested donor finances to improve domestic capacity to address epidemic threats. The tracker notes that Bolivia has disbursed, between 2014 and 2020, USD\$ 390.01M, funded by multiple donors to enhance their capacity on global security preparedness.[1] Additionally, in 2020, the World Bank supported Bolivia in its fight against COVID-19 with USD\$ 170 million. [2] There is also evidence that Bolivia invested finances to support other countries to improve their capacity to address epidemic threats, however, this happened in February 2015. The country pledged US\$1m to the UN toward the Multilateral Fund to finance a response to Ebola in Guinea, Liberia and Sierra Leone. [3] There is no further evidence via the Ministry of Health (Ministerio de Salud), Vice Ministry of Civil Defence (Vice Ministerio de Defensa Civil) or the Ministry of External Affairs (Ministerio de Relaciones Exteriores) [4,5,6]

[1] Georgetown Infectious Disease Atlas. "GHS Tracking Dashboard. Bolivia".

[<https://tracking.ghscosting.org/details/33/recipient/>]. Accessed December 2020

[2] World Bank. "The World Bank supports the response to the COVID-19 emergency in Bolivia with US \$ 170 million (El Banco Mundial apoya con US\$170 millones la respuesta a la emergencia por el COVID-19 en Bolivia)". [<https://www.bancomundial.org/es/news/press-release/2020/05/08/el-banco-mundial-apoya-con-us170-millones-la-respuesta-a-la-emergencia-por-el-covid-19-en-bolivia>]. Accessed December 2020.

[3] Ministerio de Salud. 2015. "Bolivia donates US\$1m to the United Nations for the struggle against Ebola (Bolivia Dona 1 Millón de Dólares a Las Naciones Unidas Para La Lucha Contra El …bola)".

[<https://www.minsalud.gob.bo/index.php/391-bolivia-dona-1-millon-de-dolares-a-las-naciones-unidas-para-la-lucha-contra-el-ebola>]. Accessed December 2020.

[4] Ministry of Health. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[5] Vice Ministerio de Defensa Civil. [<http://www.mindef.gob.bo/mindef/node/709>]. Accessed December 2020.

[6] Ministerio de Relaciones Exteriores. [<http://www.cancilleria.gob.bo/webmre/>]. Accessed December 2020.

5.5.4c

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

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

5.6.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence via the Ministry of Health (Ministerio de Salud) or the Ministry of Rural Development and Land (Ministerio de Desarrollo Rural y Tierras) of a publicly available plan or policy that goes beyond influenza for sharing genetic data, epidemiological data, clinical specimens and/or isolated specimens (biological materials) with international organisations or other countries. [1,2]

[1] Ministerio de Salud. [<https://www.minsalud.gob.bo/>]. Accessed December 2020.

[2] Ministerio de Desarrollo Rural y Tierras. [<http://www.ruralytierras.gob.bo/>]. Accessed December 2020.

5.6.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no public evidence that Bolivia has not shared samples in accordance with the PIP framework. There is no evidence via the WHO of sample sharing by Bolivia in 2018. [1] There is no evidence that the country has not shared samples in media coverage of an influenza outbreak in May 2018. [2,3]

[1] World Health Organisation (WHO). 2018. "Pandemic Influenza Preparedness Framework Partnership Contribution Annual Report 2018". [<https://apps.who.int/iris/bitstream/handle/10665/311901/WHO-WHE-IHM-PIP-2019.1-eng.pdf?sequence=1&isAllowed=y>]. Accessed December 2020.

[2] AriÒez, Rubèn. 2018. "18 people killed by influenza; Santa Cruz enlists emergency declaration (Se eleva a 18 los muertos por influenza y Santa Cruz alista declaratoria de emergencia)". [http://www.la-razon.com/sociedad/Influenza-Santa-Cruz-18-muertos-declaratoria-emergencia-Bolivia_0_2921107892.html]. Accessed December 2020.

[3] Pinto, Carla, and Escobar, Roxana. 2018. "Number of deaths and patients seriously ill due to influenza rises (Sube el número de fallecidos y de pacientes graves por la influenza)". [<https://www.eldeber.com.bo/santacruz/Sube-numero-de-fallecidos-y-de-pacientes-por-influenza-20180412-8450.html>]. Accessed December 2020].

5.6.1c

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

Yes = 0 , No = 1

Current Year Score: 1

There is no evidence available via the World Health Organisation (WHO) that Bolivia has not shared pandemic pathogen samples during an outbreak in the past two years. [1] There is no evidence in two international media outlets in the past two years. Also, there is no evidence that the country has not shared COVID-19 samples. [2,3]

[1] World Health Organisation (WHO). [<https://www.who.int>]. Accessed December 2020.

[2] CNN.com. [<https://edition.cnn.com/>]. Accessed December 2020.

[3] BBC.com. [<https://www.bbc.com/>]. Accessed December 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 0

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: 31

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 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: 2

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

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

Current Year Score: 1

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.1.4b

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

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

Current Year Score: 3

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

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

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

Current Year Score: 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: 3

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

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

Current Year Score: 3

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

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

Input number

Current Year Score: 92.5

2015

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: 0.55

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

According to a report from the International Labour Office of 2018, Bolivia has 68.9% of the total employed in the informal sector. (1)

[1] International Labour Office (ILO). 2018. "Women and Men in the Informal Economy: A Statistical Picture". [https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_626831.pdf]. Accessed December 2020.

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 1

2016, or latest available

World Bank; Economist Impact calculations

6.2.4 Public confidence in government

6.2.4a

Level of confidence in public institutions

Input number

Current Year Score: 0

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

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

Input number

Current Year Score: 1

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.42

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: 2

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 69.77

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: -2.06

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

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

Current Year Score: 2

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 71.24

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: 583.3

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 7.34

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 14.78

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 20.2

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 92.85

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 60.72

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: 353.06

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