

Peru

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

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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: 2

In Peru, the government has a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. The National Plan to Confront Antimicrobial Resistance 2019-2021 ("Plan Nacional para enfrentar la resistencia a los antimicrobianos") is overseen by the National Institute of Health's National Center for Public Health and was published in 2019 via Supreme Decree No. 010-2019-SA. [1] The 2019 plan replaces previous versions published in 2017 and 2018. [2, 3] It follows the guidelines established by the World Health Organization's (WHO) World Action Plan, with five strategic objectives: improving understanding of AMR, strengthening scientific knowledge, reducing the incidence of infections, appropriate use of antimicrobial medications, and making economic arguments in favor of sustainable investment in healthcare. In terms of surveillance, Objective 2.1 is to "implement a national integrated surveillance system for antimicrobial resistance" and includes activities such as creating a process map regarding comprehensive AMR surveillance (2.1.1.4) and specifying sustainable financing mechanisms for AMR surveillance (2.1.1.5). In terms of detection, Activity 2.1.2.8 states that the government shall "develop standardized procedures for the detection, confirmation and identification of priority microbial agents, as well as their patterns of resistance". In terms of reporting, Activity 2.1.2.7 states that Peru shall establish tools for working collaboratively, including sharing and using information, and "the active participation of diverse actors in scientific production". [1] According to the plan, Peru began AMR surveillance in 1997 and incorporated healthcare-associated infections (HAI) in 2002. [1, 2, 3] The plan includes information on the current state of AMR in Peru, an operational plan to combat AMR, information about budget allocations to execute the plan, and a monitoring and evaluation plan. [1, 2, 3]

[1] National Institute of Health (Instituto Nacional de Salud). 2019. "National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Decreto_Supremo_010-2019-SA-c.pdf]. Accessed 2 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2018. "National Plan to Confront Antimicrobial Resistance 2018-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Plan_Nacional_de_lucha_contra_la_resistencia_a_los_antimicrobianos_2018_2021.pdf]. Accessed 2 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2017. "National Plan to Confront Antimicrobial Resistance 2017-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[<http://www.digemid.minsa.gob.pe/Upload/UpLoaded/PDF/Acceso/URM/GestionURMTrabSalud/ReunionTecnica/VIII/Dia2/Antimicrobianos/PlanNacionalATM-2017-2021.pdf>]. Accessed 2 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: 2

In Peru, there is a national laboratory system which tests for all 7 + 1 priority AMR pathogens. Peru's national Public Health Laboratory Network ("Red de Laboratorios en Salud Pública") comprises one national reference laboratory, 25 regional reference laboratories and 4 additional reference laboratories. [1, 2] In terms of AMR surveillance specifically, more than 40 labs across the country participate, testing for *E. coli*, *K. pneumoniae*, *S. aureus*, *S. pneumoniae*, *Salmonella* spp., and *Shigella* spp. [3] According to Peru's GHS Pilot Scorecard, the network tests for the pathogens listed above, as well as *Mycobacterium tuberculosis*. [2] The National Plan to Confront Antimicrobial Resistance 2019-2021 ("Plan Nacional para enfrentar la resistencia a los antimicrobianos") states that the Peru tests for AMR for in *N. gonorrhoeae* as well. [4] Peru's AMR reports to the World Health Organization (WHO) have documented that the country carries out antimicrobial resistance surveillance for the most frequent bacterial pathogens. [5]

[1] National Institute of Health (Instituto Nacional de Salud). 2020. "Red de Laboratorios en Salud Pública".

[<https://web.ins.gob.pe/es/salud-publica/enfermedades-transmisibles/unidad-de-red-de-laboratorios-en-salud-publica>]. Accessed 8 December 2020.

[2] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[3] Pan American Health Organization. 2014. "Annual Report for the Surveillance Network for Antibiotic Resistance" ("Informe Anual de la Red de Monitoreo/Vigilancia de la Resistencia a los Antibióticos").

[<https://www.paho.org/hq/dmdocuments/2017/2014-cha-informe-anual-relavra.pdf>]. Accessed 8 December 2020.

[4] National Institute of Health (Instituto Nacional de Salud). 2019. "National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Decreto_Supremo_010-2019-SA-c.pdf]. Accessed 2 December 2020.

[5] National Institute of Health (Instituto Nacional de Salud). 2018. "2017 Seguimiento mundial de los progresos de los países en la lucha contra la resistencia a los antimicrobianos". [https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Cuestionario_de_seguimiento_1_de_marzo_2018_Peru.pdf]. Accessed 8 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

In Peru, there is insufficient evidence that the government conducts environmental detection or surveillance activities (e.g., in soil, waterways) for antimicrobial residues or AMR organisms. Peru's National AMR Plan, secondary activity 4.1.1.5 states that the government shall "undertake studies to determine the presence of antimicrobials in wastewater released into the environment". [1] The 2018 version of the plan set a goal of 2019 for completion of this activity, but in the 2019 version of the plan (most recent) the goal had been changed to 2020. [1, 2] Both versions of the plan state that no studies of antimicrobial residues in water exist in Peru. [1, 2] The 2019 plan's operational plan for activities to be carried out during the following year does not include any activities related to the completion of secondary activity 4.1.1.5. [1] According to

question 7.5.1 of Peru's 2017 progress report on AMR, the country has a national AMR plan, but lacks capacity for surveillance and communication of data regarding environmental AMR surveillance and detection, including a lack of laboratories. [3] Between 2016 and 2017, the progress reports showed that regulations were issued to control antimicrobial residues in water runoff. [3, 4] Article 25 of Supreme Decree No. 007-2017-MINAGRI states that materials involved in livestock and dairy production must be managed in order to avoid runoff and contamination of water supplies. The article does not specifically mention antimicrobial residues, but they are mentioned elsewhere in the decree. [5] The Ministry of Health's (MINSA) 2021-2023 Multi-Year Institutional Operations Plan (POI), goal 3.1, establishes that MINSA should create a "comprehensive surveillance system for the prevention of damage to the health of persons and the environment from the use of pharmaceutical products, medical devices and health products", but there is no information regarding implementation of this goal in the POI. [6] The websites of the Ministry of the Environment (MINAM), MINSA, and the Ministry of Agricultural Development and Irrigation do not contain additional public information regarding environmental detection or surveillance activities for antimicrobial residues or AMR organisms. [7, 8, 9]

[1] National Institute of Health (Instituto Nacional de Salud). 2019. "National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Decreto_Supremo_010-2019-SA-c.pdf]. Accessed 2 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2018. "National Plan to Confront Antimicrobial Resistance 2018-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Plan_Nacional_de_lucha_contra_la_resistencia_a_los_antimicrobianos_2018_2021.pdf]. Accessed 2 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2018. "2017 Seguimiento mundial de los progresos de los países en la lucha contra la resistencia a los antimicrobianos". [https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Cuestionario_de_seguimiento_1_de_marzo_2018_Peru.pdf]. Accessed 8 December 2020.

[4] National Institute of Health (Instituto Nacional de Salud). 2017. "Seguimiento mundial de los progresos realizados por los países en la lucha contra la RAM". [https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Cuestionario_de_seguimiento_12_de_enero_2017_Peru.pdf]. Accessed 9 December 2020.

[5] President of the Republic (Presidente de la Republica). 2017. "Decreto Supremo que aprueba el Reglamento de la Leche y Productos Lácteos DECRETO SUPREMO N° 007-2017-MINAGRI". [<https://busquedas.elperuano.pe/normaslegales/decreto-supremo-que-aprueba-el-reglamento-de-la-leche-y-prod-decreto-supremo-n-007-2017-minagri-1538908-1/>]. Accessed 9 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. "2021-2023 Multi-Year Institutional Operations Plan (POI)".

[<https://cdn.www.gob.pe/uploads/document/file/1204064/plan-operativo-institucional-poi-multianual-2021-2023-del-ministerio-de-salud.pdf>]. Accessed 9 December 2020.

[7] Ministry of the Environment (Ministerio del Ambiente). 2020. "MINAM". [<https://www.gob.pe/minam>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 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

In Peru, there is national legislation and regulations in place requiring prescriptions for antibiotic use in humans, but there is evidence of gaps in enforcement. Law No. 29459 of 2009 outlines requirements for medicines and medical devices and is complemented by the regulations in Supreme Decree No. 016-2011-SA which describe four categories of medicines, including those that require prescriptions. [1, 2] Peru's 2017 AMR progress report stated that antibiotic use for humans requires a prescription and that authorities monitor antibiotic sales nationally with some oversight at the subnational level as well. [3] Amoxicillin and other common antibiotics are listed in Peru's national database of pharmaceutical products that require prescriptions. [4] Nonetheless, evidence documents gaps in enforcement of requirements for prescriptions for antibiotic use in humans in Peru going back more than a decade. A 2009 study by a consumer organization found that 90% of pharmacies sold antibiotics without a prescription. [5] A study published in 2016 found that Amoxicillin, trimethoprim-sulfamethoxazole, and other antibiotics were sold without prescriptions in 13% of cases to parents seeking treatment for their children. [6] In 2017, a medical professional association reported that 44% of pharmacies sold antibiotics without a prescription. [7] A 2018 study published in the National Institute of Health's (INS) journal stated that 53.4% of antibiotic users in the country had purchased them without a prescription. [8] The Ministry of Health's (MINSa) 2021-2023 Multi-Year Institutional Operations Plan (POI), strategic action 1.4 proposes to promote the "rational use" of antimicrobials and measure progress based on the proportion of antimicrobials sold without a prescription in the private sector. [9]

- [1] Congress of the Republic (Congreso de la Republica). 2009. "Ley No. 29459". [http://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Ley_productos_farmaceuticos_dispositivos_medicos_productos_santiarios.pdf]. Accessed 9 December 2020.
- [2] President of the Republic (Presidente de la Republica). 2011. "Decreto Supremo No. 016-2011-SA". [<http://www.digemid.minsa.gob.pe/UpLoad/UpLoaded/PDF/DS016-2011-MINSA.pdf>]. Accessed 9 December 2020.
- [3] National Institute of Health (Instituto Nacional de Salud). 2018. "2017 Seguimiento mundial de los progresos de los países en la lucha contra la resistencia a los antimicrobianos". [https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Cuestionario_de_seguimiento_1_de_marzo_2018_Peru.pdf]. Accessed 8 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2020. "Registro Sanitario de Productos Farmaceuticos". [<http://www.digemid.minsa.gob.pe/ProductosFarmaceuticos/principal/pages/Default.aspx>]. Accessed 9 December 2020.
- [5] RPP Noticias. 2009. "90% of pharmacies sold antibiotics without a prescription". [<https://rpp.pe/peru/actualidad/el-90-de-debolicas-y-farmacias-estarian-vendiendo-antibioticos-sin-receta-medica-noticia-183029>]. Accessed 9 December 2020.
- [6] Ecker, Lucie, et al. 2016. "Prevalencia de compra sin receta y recomendación de antibióticos para niños menores de 5 años en farmacias privadas de zonas periurbanas en Lima, Perú". [<https://rpmesp.ins.gob.pe/index.php/rpmesp/article/view/2152/2218>]. Accessed 9 December 2020.
- [7] Medical College of Peru. 2017. "Peru: paradise for antibiotics without a prescription". [<http://web2016.cmp.org.pe/peru-paraiso-de-los-antibioticos-sin-receta-alerta-colegio-medico/>]. Accessed 9 December 2020.
- [8] National Institute of Health (Instituto Nacional de Salud). 2018. "53.4% of users bought antibiotics in pharmacies without a prescription". [<https://web.ins.gob.pe/es/prensa/noticia/el-534-de-usuarios-que-compraron-antibioticos-en-farmacias-lo-hicieron-sin-receta>]. Accessed 9 December 2020.
- [9] Ministry of Health (Ministerio de Salud). 2020. "2021-2023 Multi-Year Institutional Operations Plan (POI)". [<https://cdn.www.gob.pe/uploads/document/file/1204064/plan-operativo-institucional-poi-multianual-2021-2023-del-ministerio-de-salud.pdf>]. Accessed 9 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: 0

In Peru, there is insufficient public evidence that there is national legislation and regulations in place requiring prescriptions for antibiotic use in animals. Legislative Decree No. 1059 of 2008, Article 17, tasked the “National Agricultural Health Authority” with controlling the sale of “pharmaceutical products for veterinary use”. [1] Supreme Decree No. 018-2008-AG, Article 4, stated that the national authority was delegated to the National Agricultural Health Service (SENASA). [2] SENASA’s classification of veterinary products and feed divides the products into three groups: Group I, which requires a “restricted prescription”; Group II, which requires a prescription issued by a veterinary doctor; and Group III, which can be sold without a prescription in licensed establishments. [3] The classification table states that “antibacterial substances” are categorized as Group II (requiring a prescription) and Group III (not requiring a prescription) when sold for topical use. [3] In terms of enforcement, in April 2019 SENASA inspected facilities selling unregistered antibiotics for veterinary use in Lima. According to a prosecutor participating in the inspections, a legal vacuum exists because “informal” sales of veterinary products is not included as a crime in the penal code. [4] The websites of SENASA, the Ministry of Health (MINSa), and the Ministry of Agricultural Development and Irrigation do not contain additional public information regarding national legislation and regulations in place requiring prescriptions for antibiotic use in animals. [5, 6, 7]

[1] President of the Republic (Presidente de la Republica). 2008. “Legislative Decree No. 1059 of 2008”. [https://www.vertic.org/media/National%20Legislation/Peru/PE_Ley_Sanidad_Agraria_1059.pdf]. Accessed 9 December 2020.

[2] President of the Republic (Presidente de la Republica). 2008. “Supreme Decree No. 018-2008-AG”. [https://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Reglamento_Ley_Sanidad_Agraria.pdf]. Accessed 9 December 2020.

[3] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2014. “Classification of veterinary products and feed”. [https://www.senasa.gob.pe/senasa/descargasarchivos/2014/12/CLASIFICADOR-DE-PRODUCTOS-VETERINARIOS-Y-ALIMENTOS-PARA-ANIMALES.pdf]. Accessed 9 December 2020.

[4] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2019. “Supervision operation against informal sales of drugs and feed for veterinary use”. [https://www.senasa.gob.pe/senasacontigo/operativo-de-fiscalizacion-contraventa-informal-de-farmacos-y-alimentos-de-uso-veterinario/]. Accessed 9 December 2020.

[5] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. “SENASA”. [https://www.senasa.gob.pe/senasa/]. Accessed 9 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. “MINSa”. [https://www.gob.pe/minsa/]. Accessed 9 December 2020.

[7] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. “MIDAGRI”. [https://www.gob.pe/midagri]. Accessed 9 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: 1

In Peru, there is a national strategy on zoonotic disease. The Ministry of Health’s (MINSa) National Health Strategy for Zoonosis was created via Ministerial Resolution No. 470-2008/MINSa. [1] Article 1 of the resolution states that the goal of the strategy is the “diagnosis, treatment, protection and recovery of persons affected by zoonoses”. [1] Specific actions in the

strategy relate to surveillance, control and treatment of specific zoonoses, including rabies, plague, brucellosis, leptospirosis, anthrax, and others. [2] The strategy is complemented by MINSA technical guides on prevention and diagnosis of many of the aforementioned diseases, which represent current regulations regarding zoonotic diseases. [3] For example, the Technical Health Regulations for Surveillance, Prevention and Control of Human Rabies in Peru (NTS. No. 131 - MINSA/DGIESP) comprises nearly 100 pages of information, including actions for prevention, information about vaccination, activities to reduce the reservoir of infected animals, and epidemiological surveillance, among others. [4] The strategy created a Technical Committee comprised of offices within MINSA and the National Institute of Health (INS), as well as a Consultative Committee that includes international organizations, professional bodies, academia, and authorities from the animal health sector. [1, 5] In March 2019, MINSA convened these committees to evaluate the strategy and reorient actions toward “unattended and forgotten zoonoses” in the country. [6] A 2019 budget document shows that actions under the strategy include surveillance, development of technical guides and regulations for specific illnesses, health promotion, and vaccination of animals, among others. [7]

- [1] Ministry of Health (Ministerio de Salud). 2008. “Ministerial Resolution No. 470-2008/MINSA”. [https://cdn.www.gob.pe/uploads/document/file/276714/247997_RM470-2008EP.pdf20190110-18386-js9456.pdf]. Accessed 9 December 2020.
- [2] Ministry of Health (Ministerio de Salud). “Zoonosis – Presentation”. [https://www.minsa.gob.pe/portalweb/06prevencion/prevencion_2052.asp]. Accessed 9 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2015. “ESTRATEGIA SANITARIA NACIONAL DE ZOONOSIS”. [ftp://ftp.minsa.gob.pe/sismed/ftp_carga/REUNION%20FORTALECIMIENTO%20SISMED%20EN%20EL%20MARCO%20DE%20LAS%20ESTRATEGIAS%20DEL%2012%20AL%2015%20MARZO%202018/REUNION%20TECNICA%2012%20_15%20MARZO%202018/DGSP%20ANIO%202016/ZOONOSIS/TABLERO%20%20ZOONOSIS.xlsx]. Accessed 9 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2017. “Norma Técnica de Salud para la prevención y control de la rabia humana en el Perú”. [http://bvs.minsa.gob.pe/local/MINSA/4193.pdf]. Accessed 9 December 2020.
- [5] Ministry of Health (Ministerio de Salud). “Zoonosis – Strategies”. [https://www.minsa.gob.pe/portalweb/06prevencion/prevencion_2051.asp]. Accessed 9 December 2020.
- [6] Ministry of Health (Ministerio de Salud). 2020. “MINSA coordinates actions for the prevention and control of diseases transmitted by animals”. [https://www.gob.pe/institucion/minsa/noticias/26548-minsa-coordina-acciones-para-la-prevencion-y-control-de-enfermedades-transmitidas-por-animales]. Accessed 9 December 2020.
- [7] Ministry of Health (Ministerio de Salud). 2020. “Budget Program Zoonosis”. [https://www.minsa.gob.pe/presupuestales/doc2019/pp/anexo/ANEXO2_4.pdf]. Accessed 9 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

In Peru, there is insufficient public evidence that there are national plans and regulations which include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. The Ministry of Health’s (MINSA) National Health Strategy for Zoonosis strategic actions describe the existence of “reservoirs” of various zoonotic diseases that can spillover into the human population, including rabies, leptospirosis, and emerging zoonoses resulting from human encroachment on wildlife habitat. However, the strategy does not include measures to reduce the risk of spillover events. [1] The strategy is complemented by MINSA technical guides on prevention and diagnosis of many of the aforementioned diseases, which represent risk mitigation strategies for specific diseases instead of risk reduction strategies for spillover events. [2] For example, the Technical Health Regulations for Surveillance, Prevention and Control of Human Rabies in Peru

(NTS. No. 131 - MINSA/DGIESP) identify risks to the “community exposed to the rabies virus” where humans and animals are frequently bitten by bats. [3] The regulations state that municipal health departments shall monitor reports of bites, carry out epidemiological surveillance, evaluate the situation of the canine population, and integrate information from MINSA and the National Agricultural Health Service (SENASA). [3] In addition, the regulations state that monitoring should cover the presence of stray dogs, existence of packs of stray animals, and presence of aggressive dogs, as well as increases of bites on livestock, increases of bats in the community, and the existence of dwellings where bats can enter freely, for surveillance of wild rabies. [3] The websites of SENASA, the Ministry of Health (MINSA), and the Ministry of Agricultural Development and Irrigation do not contain additional public information regarding national plans and regulations which include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. [4, 5, 6]

[1] Ministry of Health (Ministerio de Salud). “Zoonosis – Strategies”.

[https://www.minsa.gob.pe/portalweb/06prevencion/prevencion_2051.asp]. Accessed 9 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2015. “ESTRATEGIA SANITARIA NACIONAL DE ZOONOSIS”.

[ftp://ftp.minsa.gob.pe/sismed/ftp_carga/REUNION%20FORTALECIMIENTO%20SISMED%20EN%20EL%20MARCO%20DE%20LAS%20ESTRATEGIAS%20DEL%2012%20AL%2015%20MARZO%202018/REUNION%20TECNICA%2012%20_15%20MARZO%202018/DGSP%20ANIO%202016/ZOONOSIS/TABLERO%20ZOONOSIS.xlsx]. Accessed 9 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2017. “Norma Técnica de Salud para la prevención y control de la rabia humana en el Perú”. [<http://bvs.minsa.gob.pe/local/MINSA/4193.pdf>]. Accessed 9 December 2020.

[4] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. “SENASA”.

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. “MINSA”. [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[6] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. “MIDAGRI”.

[<https://www.gob.pe/midagri>]. Accessed 9 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

In Peru, there is a national strategy and regulations that account for the surveillance and control of multiple zoonotic pathogens of public health concern. The Ministry of Health’s (MINSA) National Health Strategy for Zoonosis was created via Ministerial Resolution No. 470-2008/MINSA. [1] Article 1 of the resolution states that the goal of the strategy is the “diagnosis, treatment, protection and recovery of persons affected by zoonoses”. [1] Actions in the strategy relate to surveillance, control and treatment of specific zoonoses, including rabies, plague, brucellosis, leptospirosis, anthrax, and others. [2] The strategy is complemented by MINSA technical guides on prevention and diagnosis of many of the aforementioned diseases, which represent current regulations regarding zoonotic diseases. [3] For example, the Technical Health Regulations for Surveillance, Prevention and Control of Human Rabies in Peru (NTS. No. 131 - MINSA/DGIESP) comprises nearly 100 pages of information, including actions for prevention, information about vaccination, activities to reduce the reservoir of infected animals, and epidemiological surveillance, among others. [4] In terms of brucellosis, Ministerial Resolution No. 139-2009/MINSA provides regulations for the surveillance and control of the disease, including laboratory and screening tests for surveillance and pasteurization of dairy products and community education in terms of control. [5] In terms of leptospirosis, MINSA issued updated regulations in 2012, which describe actions for surveillance via guidelines for determining suspected and confirmed cases, as well as actions for control by evaluating occupational risks, limiting contact with livestock, and avoiding contaminated water sources. [6]

- [1] Ministry of Health (Ministerio de Salud). 2008. “Ministerial Resolution No. 470-2008/MINSA”. [https://cdn.www.gob.pe/uploads/document/file/276714/247997_RM470-2008EP.pdf20190110-18386-js9456.pdf]. Accessed 9 December 2020.
- [2] Ministry of Health (Ministerio de Salud). “Zoonosis – Strategies”. [https://www.minsa.gob.pe/portalweb/06prevencion/prevencion_2051.asp]. Accessed 9 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2015. “ESTRATEGIA SANITARIA NACIONAL DE ZOONOSIS”. [ftp://ftp.minsa.gob.pe/simed/ftp_carga/REUNION%20FORTALECIMIENTO%20SISMED%20EN%20EL%20MARCO%20DE%20LAS%20ESTRATEGIAS%20DEL%2012%20AL%2015%20MARZO%202018/REUNION%20TECNICA%2012%20_15%20MARZO%202018/DGSP%20ANIO%202016/ZOONOSIS/TABLERO%20%20ZOONOSIS.xlsx]. Accessed 9 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2017. “Norma Técnica de Salud para la prevención y control de la rabia humana en el Perú”. [http://bvs.minsa.gob.pe/local/MINSA/4193.pdf]. Accessed 9 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2009. “Ministerial Resolution No. 139-2009/MINSA”. [ftp://ftp2.minsa.gob.pe/normaslegales/2009/RM139-2009.pdf]. Accessed 9 December 2020.
- [6] Ministry of Health (Ministerio de Salud). 2012. “NTS N° 049-MINSA”. [http://bvs.minsa.gob.pe/local/MINSA/2358.pdf]. Accessed 9 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

In Peru, there is no public evidence that the country has a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries. The Ministry of Health’s (MINSA) National Health Strategy for Zoonosis created a Technical Committee comprised of offices within MINSA and the National Institute of Health (INS), as well as a Consultative Committee that includes international organizations, professional bodies, academia, and the animal health sector agency, the National Animal Health Service (SENASA). [1, 2] These committees are MINSA bodies and there is no public evidence that they operate across ministries. [1, 2, 3] MINSA’s Directorate of Prevention and Control of Zoonotic and Vector-Borne Diseases leads the ministry’s efforts regarding zoonoses. [3, 4] SENASA is charged with agricultural health, input quality, organic production and food safety. [5] In addition, SENASA coordinates the agricultural aspect of zoonotic diseases. SENASA’s website states that it is linked to the Ministry of Health for the “development of joint projects and plans, information exchange and diagnosis in some cases of zoonotic diseases”. [6] The collaboration was formalized in Agreement No. 10-2006-AG-DM, but the text of the agreement is not available at SENASA’s website. [7] According to Peru’s GHS Pilot Scorecard, “there is good interaction and coordination between the different agencies involved in zoonotic disease management”. [8] Peru’s 2018 International Health Regulations (IHR) State Party self-assessment annual report scored the country at 60% for indicator “C.3.1 Collaborative effort on activities to address zoonoses”. [9] The websites of SENASA, the Ministry of Health (MINSA), and the Ministry of Agricultural Development and Irrigation do not contain additional public information regarding a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries. [10, 11, 12]

- [1] Ministry of Health (Ministerio de Salud). 2008. “Ministerial Resolution No. 470-2008/MINSA”. [https://cdn.www.gob.pe/uploads/document/file/276714/247997_RM470-2008EP.pdf20190110-18386-js9456.pdf]. Accessed 9 December 2020.
- [2] Ministry of Health (Ministerio de Salud). “Zoonosis – Presentation”. [https://www.minsa.gob.pe/portalweb/06prevencion/prevencion_2052.asp]. Accessed 9 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2020. “MINSA coordinates actions for the prevention and control of diseases transmitted by animals”. [https://www.gob.pe/institucion/minsa/noticias/26548-minsa-coordina-acciones-para-la-prevencion-y-control-de-enfermedades-transmitidas-por-animales]. Accessed 9 December 2020.

- [4] Ministry of Health (Ministerio de Salud). 2020. "Karim Jacqueline Pardo Ruiz".
[<https://www.gob.pe/institucion/minsa/funcionarios/889-karim-jacqueline-pardo-ruiz>]. Accessed 9 December 2020.
- [5] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "Qué es SENASA".
[<https://www.senasa.gob.pe/senasa/que-es-senasa/>]. Accessed 9 December 2020.
- [6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "Institucionales Vinculadas".
[<https://www.senasa.gob.pe/senasa/institucionales-vinculadas/>]. Accessed 9 December 2020.
- [7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "Convenios".
[<https://www.senasa.gob.pe/senasa/convenios-2/>]. Accessed 9 December 2020.
- [8] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".
[<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [9] World Health Organization. 2018. "Peru - IHR State Party self-assessment annual reports".
<https://extranet.who.int/sph/country/193>. Accessed 9 December 2020.
- [10] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA".
[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.
- [11] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [12] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".
[<https://www.gob.pe/midagri>]. Accessed 9 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

In Peru, there is a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on disease surveillance to a central government agency. Livestock owners are required to report diseases to the National Animal Health Service (SENASA). SENASA is charged with agricultural health, input quality, organic production and food safety. In addition, SENASA coordinates the agricultural aspect of zoonotic diseases. [1] Legislative Decree No. 1059 of 2008 (Article 9) establishes the obligation to report animal diseases to SENASA. It states that following animal health and quarantine measures is obligatory for owners and operators. On the obligation to report diseases, any person with knowledge of a disease is obligated to report it to SENASA. [2] In addition, Article 9 of the regulations in Supreme Decree No. 018-2008-AG reinforces this requirement for any individual with knowledge of a quarantine disease to report it to SENASA. The article also states that SENASA will create and update the list of compulsory notification diseases. [3] SENASA's website provides a toll-free hotline for individuals to report animal diseases and includes links to weekly disease reports compiled by the agency. [4, 5]

[1] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "Qué es SENASA".

[<https://www.senasa.gob.pe/senasa/que-es-senasa/>]. Accessed 9 December 2020.

[2] President of the Republic (Presidente de la Republica). 2008. "Legislative Decree No. 1059 of 2008".

[https://www.vertic.org/media/National%20Legislation/Peru/PE_Ley_Sanidad_Agraria_1059.pdf]. Accessed 9 December 2020.

[3] President of the Republic (Presidente de la Republica). 2008. "Supreme Decree No. 018-2008-AG".

[https://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Reglamento_Ley_Sanidad_Agraria.pdf]. Accessed 9

December 2020.

[4] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "Reportes de Enfermedades". [<https://www.senasa.gob.pe/senasa/reportes-de-enfermedades/>]. Accessed 9 December 2020.

[5] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "Reportes Epidemiológicos Semanales". [<https://www.senasa.gob.pe/senasa/reportes-epidemiologicos-semanales/>]. Accessed 9 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

In Peru, there is insufficient public evidence of legislation and/or regulations that safeguard the confidentiality of information generated through surveillance activities for animals (for owners). Article 2 of Department Resolution No. 271-2008-AG-SENASA reiterates the requirement to notify the National Agricultural Health Service (SENASA) of animal diseases included on the list published by the agency. The regulation does not mention the confidentiality of the owner or individual who makes the report. [1] The form for reporting animal disease requests the landowner's and the animal owner's information and must be emailed in. [2] The online description of SENASA's Avian Pathology Laboratory states that it guarantees the "confidentiality and reliability of the results", but does not describe regulations that require confidentiality. [3] SENASA's Information Security Policy and Code of Ethics both require confidentiality of sensitive information, but neither specifically mentions information generated through surveillance activities for animals. [4, 5] Publicly available epidemiological surveillance reports generated by SENASA include location information but do not include individual owner information. [6] The websites of the Ministry of Health, the Ministry of Agricultural Development and Irrigation, and SENASA do not contain additional information regarding specific guidelines that safeguard the confidentiality of information generated through surveillance activities of animal disease. [7, 8, 9]

[1] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2008. "Resolucion Jefatural 271-2008-AG-SENASA". [http://www.vertic.org/media/National%20Legislation/Peru/PE_RJ-271_2008_AG_SENASA.pdf]. Accessed 9 December 2020.

[2] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "FORMATO DE NOTIFICACION". [https://www.senasa.gob.pe/senasa/descargasarchivos/jer/ANRIEVIIEP_ENFERNOTIFI/DSA_DVZ01_Formato_Notificacion.XLS]. Accessed 9 December 2020.

[3] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "Avian Pathology Laboratory". [<https://www.senasa.gob.pe/senasa/laboratorio-de-patologia-aviar/>]. Accessed 9 December 2020.

[4] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2016. "Information Security Policy". [<https://www.senasa.gob.pe/senasa/descargasarchivos/2015/01/Politica-de-Seguridad-13-09-2016.pdf>]. Accessed 9 December 2020.

[5] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2010. "Code of Ethics". [https://www.senasa.gob.pe/senasa/descargasarchivos/2014/02/PRO-ST-02_Promoci%C3%B3n-y-Aplicaci%C3%B3n-del-C%C3%B3digo-de-%C3%89tica-en-SENASA_Rev001.pdf]. Accessed 9 December 2020.

[6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "Week 46 Report". [<https://www.senasa.gob.pe/senasa/descargasarchivos/2020/12/REPORTE-SEMANA-46.pdf>]. Accessed 9 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".

[<https://www.gob.pe/midagri>]. Accessed 9 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

In Peru, the government conducts surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors), principally via the National Agricultural Health Service (SENASA) and the National Centre for Epidemiology, Prevention and Control of Diseases (DGE). SENASA monitors wild bird populations for the presence of avian flu, as well as wild mammal populations for rabies. [1, 2] In 2010, SENASA codified its procedures for “Surveillance of Illnesses in Wildlife”, which include active and passive surveillance. [3, 4] The DGE also monitors wild mammal populations for rabies. [5] Technical Health Regulations for the Surveillance, Prevention and Control of Human Rabies in Peru (NTS No. 131 – MINSA/2017/DGIESP) describe surveillance procedures for monitoring rabies in wildlife populations. [6]

[1] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2017. “PLAN ESTRATEGICO INSTITUCIONAL 2017 – 2019”. [<http://extwprlegs1.fao.org/docs/pdf/per172177anx.pdf>]. Accessed 9 December 2020.

[2] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2017. “Animal health alert in 11 regions”. [<http://minagri.gob.pe/portal/noticias-antecedentes/notas-2017/18934-alerta-sanitaria-animales-en-11-regiones-en-emergencia>]. Accessed 9 December 2020.

[3] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2010. “PRO-SARVE-06”. [<https://www.senasa.gob.pe/senasa/descargasarchivos/2014/10/Procedimiento-%E2%80%9CVigilancia-de-Enfermedades-en-Animales-Silvestres.pdf>]. Accessed 9 December 2020.

[4] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2010. “Directorial Resolution No. 030-1010-AG-SENASA-DSA”. [<https://www.senasa.gob.pe/senasa/descargasarchivos/2014/10/Resoluci%C3%B3n-Directoral-N%C2%BA-030-2010-AG-SENASA-DSA.pdf>]. Accessed 9 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2018. “BOLETÍN EPIDEMIOLÓGICO DEL PERÚ Semana Epidemiológica (del 29 de abril 05 de mayo de 2018) VOLUMEN 27 - SE 18”. [<http://www.dge.gob.pe/portal/docs/vigilancia/boletines/2018/18.pdf>]. Accessed 9 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2017. “Norma Técnica de Salud para la prevención y control de la rabia humana en el Perú”. [<http://bvs.minsa.gob.pe/local/MINSA/4193.pdf>]. Accessed 9 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: 1.53

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 1.6

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 1

In Peru, national plans and regulations on zoonotic disease include mechanisms for working with the private sector in controlling and responding to zoonoses. The Ministry of Health's (MINSa) National Health Strategy for Zoonosis created a Consultative Committee that includes private sector representatives from professional bodies and academia, along with other members. [1, 2] In addition, MINSa's Health Directive for the Epidemiological Surveillance of Zoonotic Diseases and Accidents (DIRECTIVA SANITARIA N° 065 - MINSa/DGE - V.01) describes requirements for private sector clinics to communicate any zoonotic disease diagnoses to health authorities within 24 hours. The regulation specifically states that it applies to all public and private health establishments. [3] MINSa's Technical Health Regulations for the Surveillance, Prevention and Control of Human Rabies in Peru (NTS No. 131 – MINSa/2017/DGIESP) describes coordination between regional and local health authorities and private healthcare facilities for the "prevention and control of human rabies". [4] The National Agricultural Health Service (SENASA) describes its coordination with the private sector in the fight against zoonotic diseases, listing collaborating organizations which include: Local Animal Health Committees, veterinarians and agronomists, Dairy Development Funds, stockyards, schools of veterinary medicine, veterinary associations, slaughterhouses, private laboratories and livestock producer associations. For example, Local Animal Health Committees implement SENASA's animal health programs at the local level. Private practice veterinarians and technicians participate in SENASA's prevention and control programs. In some cases veterinary associations carry out SENASA's animal vaccination programs. Producer associations fund some SENASA's zoonotic disease programs. [5]

- [1] Ministry of Health (Ministerio de Salud). 2008. "Ministerial Resolution No. 470-2008/MINSA". [https://cdn.www.gob.pe/uploads/document/file/276714/247997_RM470-2008EP.pdf20190110-18386-js9456.pdf]. Accessed 9 December 2020.
- [2] Ministry of Health (Ministerio de Salud). "Zoonosis – Presentation". [https://www.minsa.gob.pe/portalweb/06prevencion/prevencion_2052.asp]. Accessed 9 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2015. "DIRECTIVA SANITARIA N° 065 - MINSA/DGE - V.01". [http://bvs.minsa.gob.pe/local/MINSA/3418.pdf]. Accessed 9 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2017. "Norma Técnica de Salud para la prevención y control de la rabia humana en el Perú". [http://bvs.minsa.gob.pe/local/MINSA/4193.pdf]. Accessed 9 December 2020.
- [5] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "Coordinaciones Interinstitucionales". [https://www.senasa.gob.pe/senasa/coordinaciones-interinstitucionales-2/]. Accessed 9 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

In Peru, there is no public evidence that the government has 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. In 2016, the National Institute of Health (INS) created a Biosafety and Biosecurity Committee (CBB), and Department Resolution No. 013-2018-J-OPE/INS charges the CBB with maintaining "a database of the microorganisms manipulated in INS laboratories, which will be updated annually". This requirement does not apply to laboratories outside the INS. [1] The Ministry of Health's (MINSA) Biosafety Manual does not describe any inventory system beyond that required for individual laboratories. [2] In 2019, the National Quality Institute (INACAL) issued Peruvian Technical Standard (NTP) 731.006:2019 Biosafety - Bio-risk management in the laboratory. To achieve the standard, laboratories must maintain an inventory system of biological agents and toxins, but the standard is not compulsory for laboratories. [3] According to Peru's GHS Pilot Scorecard, "Peru has no specific list on especially dangerous pathogens", "no laboratory licensing system", and some laboratories house "especially dangerous pathogens that are endemic in Peru but they do not have an inventory for them". [4] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding a record of the facilities in which especially dangerous pathogens and toxins are stored or processed. [5] The websites of the MINSA, INS (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), National Institute for Agricultural Innovation (INIA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding a record, updated within the past five years, of the facilities in which especially dangerous pathogens and toxins are stored or processed. [6, 7, 8, 9, 10, 11, 12, 13]

- [1] Instituto Nacional de Salud. 2018. "Resolucion Jefatural No. 013-2018-J-OPE/INS". [http://www.ins.gob.pe/insvirtual/images/normatividad/resoluciones/RJ%20N%C2%BA%20013-2018.PDF]. Accessed 9 December 2020.

- [2] Ministerio de Salud. 1996. "Manual de Normas de Bioseguridad". [<http://bvs.minsa.gob.pe/local/minsa/1670.pdf>]. Accessed 9 December 2020.
- [3] National Quality Institute (Instituto Nacional de Calidad). 2020. "Peruvian Technical Standard (NTP) 731.006:2019 Biosafety - Bio-risk management in the laboratory". [https://www.inacal.gob.pe/repositorioaps/data/1/1/6/jer/jueves-normalizacion/files/Presentaciones_10-09-2020.pdf]. Accessed 9 December 2020.
- [4] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [5] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.
- [6] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.
- [7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.
- [8] Ministry of Health (Ministerio de Salud). 2020. "MINSa". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.
- [10] National Institute for Agricultural Innovation (Instituto Nacional de Innovación Agraria). 2020. "INIA". [<https://www.gob.pe/inia>]. Accessed 9 December 2020.
- [11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.
- [12] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.
- [13] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 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

In Peru, there is no public evidence that the government has in place legislation and/or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems, and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed. According to Peru's GHS Pilot Scorecard, "biosecurity concepts are not yet elaborated". [1] The Ministry of Health's (MINSa) National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos) Activity 2.1.1.6 is to "Create a national regulatory document about biosafety and biosecurity". The Plan does not set a specific date for the completion of the document, nor does it include secondary activities related to its completion. [2] In June 2016, Peru created the Sectoral Commission on Global Health Security (Ministerial Resolution No. 428-2016/MINSa) in order to propose regulatory documents related to the GHSA. There is no public evidence that such documents have been published. [3] The National Institute of Health (INS) houses a Biosafety and Biosecurity Committee (CBB) that was tasked in 2016 with "creating a National Plan for Biosafety and Biosecurity". There is no public evidence that such a plan has been issued. [4] In 2019, the National Quality Institute (INACAL) issued Peruvian Technical Standard (NTP) 731.006:2019 Biosafety - Bio-risk management

in the laboratory, which contains provisions related to biosecurity, such as physical security protocols, but it is not compulsory. [5] In 2015, the National Agricultural Health Service (SENASA) published some rules that address limited aspects of biosecurity at its facilities. SENASA's animal and plant health laboratories are supposed to limit access to authorized personnel only (Articles 58 & 60, Regulations SST-2015). [6] Peru's 2018 International Health Regulations (IHR) State Party self-assessment annual report scored the country at 40% for indicator "C.5.2 Implementation of a laboratory biosafety and biosecurity regime". [7] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding legislation and/or regulations related to biosecurity. [8] The websites of the MINSa, INS (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding legislation and/or regulations related to biosecurity. [9, 10, 11, 12, 13, 14, 15]

- [1] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHS+A+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [2] National Institute of Health (Instituto Nacional de Salud). 2019. "National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)". [https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Decreto_Supremo_010-2019-SA-c.pdf]. Accessed 2 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2016. "Resolucion Ministerial No. 428-2016/MINSA". [<ftp://ftp2.minsa.gob.pe/normaslegales/2016/1394512-1.pdf>]. Accessed 9 December 2020.
- [4] National Institute of Health (Instituto Nacional de Salud). 2016. "Departmental Resolution No. 206-2016-J-OPE/INS". [https://cdn.www.gob.pe/uploads/document/file/1064141/RJ_N%C2%BA_206-201620200729-107894-1tnhelu.PDF]. Accessed 9 December 2020.
- [5] National Quality Institute (Instituto Nacional de Calidad). 2020. "Peruvian Technical Standard (NTP) 731.006:2019 Biosafety - Bio-risk management in the laboratory". [https://www.inacal.gob.pe/repositorioaps/data/1/1/6/jer/jueves-normalizacion/files/Presentaciones_10-09-2020.pdf]. Accessed 9 December 2020.
- [6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "REGLAMENTO INTERNO DE SEGURIDAD Y SALUD EN EL TRABAJO (RISST) 2015". [<https://www.senasa.gob.pe/senasa/descargasarchivos/2015/03/REGLAMENTO-SST-2015-modificado-final.pdf>]. Accessed 9 December 2020.
- [7] World Health Organization. 2018. "Peru - IHR State Party self-assessment annual reports". [<https://extranet.who.int/sph/country/193>]. Accessed 9 December 2020.
- [8] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.
- [9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.
- [10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.
- [11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.
- [12] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.
- [13] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.
- [14] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA".

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[15] Ministry of Health (Ministerio de Salud). 2020. "MINSAs". [<https://www.gob.pe/minsa/>]. Accessed 9 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

In Peru, there is no public evidence that there is an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. According to Peru's 2015 GHS Pilot Scorecard, "biosecurity concepts are not yet elaborated". The document does not mention a biosecurity agency. [1] In June 2016, the Ministry of Health (MINSAs) created the Sectoral Commission on Global Health Security (Ministerial Resolution No. 428-2016/MINSAs) in order to propose regulatory documents related to the Global Health Security Agenda (GHSAs). There is no public evidence that such documents have been published and the commission's mandate does not include enforcement. [2] The Ministry of Health's (MINSAs) National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos) Activity 2.1.1.6 is to "Create a national regulatory document about biosafety and biosecurity". The Plan does not set a specific date for the completion of the document, nor does it include secondary activities related to its completion. [3] The National Institute of Health (INS) houses a Biosafety and Biosecurity Committee (CBB) that was created in 2016 and tasked with "creating a National Plan for Biosafety and Biosecurity". There is no public evidence that such a plan has been issued. The CBB is only responsible for biosafety and biosecurity at INS facilities and does not have enforcement capabilities. [4] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding an established agency responsible for the enforcement of biosecurity. [5] The websites of the MINSAs, INS (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENAsAs), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding an established agency responsible for the enforcement of biosecurity. [6, 7, 8, 9, 10, 11, 12]

[1] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHSAs+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2016. "Resolucion Ministerial No. 428-2016/MINSAs".

[<ftp://ftp2.minsa.gob.pe/normaslegales/2016/1394512-1.pdf>]. Accessed 9 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2019. "National Plan to Confront Antimicrobial Resistance 2019-2021 (Plan Nacional para enfrentar la resistencia a los antimicrobianos)".

[https://antimicrobianos.ins.gob.pe/images/contenido/plan-nacional/Decreto_Supremo_010-2019-SA-c.pdf]. Accessed 2 December 2020.

[4] National Institute of Health (Instituto Nacional de Salud). 2016. "Departmental Resolution No. 206-2016-J-OPE/INS".

[https://cdn.www.gob.pe/uploads/document/file/1064141/RJ_N%C2%BA_206-201620200729-107894-1tnhelu.PDF]. Accessed 9 December 2020.

[5] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.

[6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru".

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENAsAs".

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSAs". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri/>]. Accessed 9 December 2020.

[10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef/>]. Accessed 9 December 2020.

[12] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec/>]. Accessed 9 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

In Peru, there is no public evidence that the country has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. According to Peru's 2015 GHS Pilot Scorecard, "there is no laboratory licensing system" and multiple laboratories have "especially dangerous pathogens that are endemic in Peru but they do not have an inventory for them". [1] In addition, the assessment was unable to determine the status of biosecurity controls at some of the laboratories mentioned above. The document does not mention any plan or efforts to consolidate inventories. [1] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding actions to consolidate inventories of especially dangerous pathogens and toxins. [2] The websites of the Ministry of Health (MINSAs), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding an established agency responsible for the enforcement of biosecurity. [3, 4, 5, 6, 7, 8, 9]

[1] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[2] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[4] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef/>]. Accessed 9 December 2020.

[5] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec/>]. Accessed 9 December 2020.

[6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". Accessed 9 December 2020. [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>].

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSAs". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".

[<https://www.gob.pe/midagri>]. Accessed 9 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: 1

In Peru, there is public evidence of in-country capacity to conduct Polymerase Chain Reaction (PCR)–based diagnostic testing for anthrax and Ebola, which would preclude culturing a live pathogen. The National Institute of Health’s (INS) Microbiology and Biomedicine Laboratory has the capacity to test for Ebola using PCR to obtain a result within 24 hours. [1] In addition, the INS also has the capacity to carry out diagnostic testing for anthrax using PCR. The INS used this capability to confirm an outbreak of *Bacillus anthracis* among cattle in 2015. [2]

[1] Presidential Council of Ministers. 2014. “Peru has a modern laboratory that can diagnose Ebola in 24 hours”. [<http://www.pcm.gob.pe/2014/12/ana-jara-peru-cuenta-con-moderno-laboratorio-que-diagnostica-el-ebola-en-24-horas/>]. Accessed 9 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2015. “Surveillance of zoonotic diseases”. [<http://www.dge.gob.pe/portal/docs/tools/teleconferencia/SE082017/02carbunco.pdf>]. Accessed 9 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

In Peru, there is no public evidence that the country requires biosecurity training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. Peru's National Institute of Health (INS) has reported that it is in the process of setting up biosecurity training protocols for all of its facilities, but these do not apply to other facilities in the country. INS created a Biosafety and Biosecurity Committee (CBB) in 2016 and Department Resolution No. 013-2018-J-OPE/INS charges the CBB with "coordinating training activities regarding Biosafety and Biosecurity for personnel", "responding to enquiries related to Biosafety and Biosecurity", and "promoting, developing and sharing research on issues related to Biosafety and Biosecurity". [1] The INS' 2019 and 2020 personnel training programs did not include biosecurity training for staff. [2] Since 2011, the INS has had a Memorandum of Understanding with the Sandia Corporation that operates the Sandia National Laboratories in the United States for the formation of personnel in biosafety and biosecurity. [3] According to Peru's 2015 GHS Pilot Scorecard, "there is no academic education on biosafety, biosecurity or dual use issues", the INS needs more biosecurity training, and "there is no formal train-the-trainer program". [4] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding biosecurity training. [5] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of

Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding biosecurity training. [6, 7, 8, 9, 10, 11, 12]

[1] National Institute of Health (Instituto Nacional de Salud). 2018. "Resolucion Jefatural No. 013-2018-J-OPE/INS".

[<http://www.ins.gob.pe/insvirtual/images/normatividad/resoluciones/RJ%20N%C2%BA%20013-2018.PDF>]. Accessed 9 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2020. "Personnel Training Program".

[<https://cdn.www.gob.pe/uploads/document/file/1401580/RJ%20N%C2%BA235-2020%20PDP%202020%20V.02.pdf.pdf>]. Accessed 9 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2011. "Memorandum of Understanding Sandia".

[<https://www.ins.gob.pe/insvirtual/images/normatividad/convenios/MEMORANDO%20ENTENDIMIENTO%20SANDIA.PDF>]. Accessed 9 December 2020.

[4] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHS+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[5] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.

[6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru".

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA".

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".

[<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[12]

National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 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

In Peru, there is no public evidence that regulations or licensing conditions specify that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to the following checks: drug testing, background checks, and psychological or mental fitness checks. The National Agricultural Health Service

(SENASA) has published some rules that address limited aspects of biosecurity at its facilities. SENASA's animal and plant health laboratories are supposed to limit access to authorized personnel only (Articles 58 & 60, Regulations SST-2015). The regulations do not describe any personnel vetting procedures. [1] The Regulations for the Transport of Dangerous Substances (Supreme Decree No. 021-2008-MTC) require individuals licensed to transport dangerous materials to undergo a medical psychosomatic aptitude test. This regulation is not specific to biosecurity. [2] The National Institute of Health (INS) has published recommended requirements for personnel at its research offices. None of the requirements listed for the positions described include personnel vetting. [3] In 2019, the National Quality Institute (INACAL) issued Peruvian Technical Standard (NTP) 731.006:2019 Biosafety - Bio-risk management in the laboratory, which contains provisions related to biosecurity, including "4.4.4.7 Factors of behavior and control of personnel" and "4.4.4.7.1 Trustworthiness of personnel". The complete version of the standard is not freely available, and its application is not compulsory. [4] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding personnel vetting. [5] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding personnel vetting. [6, 7, 8, 9, 10, 11, 12]

[1] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2015. "REGLAMENTO INTERNO DE SEGURIDAD Y SALUD EN EL TRABAJO (RISST) 2015". [<https://www.senasa.gob.pe/senasa/descargasarchivos/2015/03/REGLAMENTO-SST-2015-modificado-final.pdf>]. Accessed 9 December 2020.

[2] President of the Republic (Presidente de la Republica). 2008. "DECRETO SUPREMO N° 021-2008-MTC". [http://www.vertic.org/media/National%20Legislation/Peru/Peru_Reglamento_Transporte_Materiales_Peligrosos_FINAL.pdf]

[3] National Institute of Health (Instituto Nacional de Salud). 2011. "Modelo de Organización y Funciones de la Oficina/Unidad Regional de Investigación en Salud Instituto Nacional de Salud". [[http://www.ins.gob.pe/insvirtual/images/otrpubs/pdf/MODELO%20DE%20ORGANIZACION\[22-7-11\].pdf](http://www.ins.gob.pe/insvirtual/images/otrpubs/pdf/MODELO%20DE%20ORGANIZACION[22-7-11].pdf)].

[4] National Quality Institute (Instituto Nacional de Calidad). 2020. "Peruvian Technical Standard (NTP) 731.006:2019 Biosafety - Bio-risk management in the laboratory". [https://www.inacal.gob.pe/repositorioaps/data/1/1/6/jer/jueves-normalizacion/files/Presentaciones_10-09-2020.pdf]. Accessed 9 December 2020.

[5] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.

[6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[12] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 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

In Peru, the government has national regulations on the safe and secure transport of infectious substances, specifically including Categories A and B. In May 2019, the Ministry of Health (MINSa) issued Ministerial Resolution No. 463-2019/MINSa, which approved the Technical Health Regulation (NTS) No. 153-MINSa/2019/INS "Technical Health Regulation on the Preparation, Packing and Documentation for Safe Transport of Infectious Substances". [1, 2] The regulation specifically mentions Category A and B infectious substances, providing directives for each category (Sections 5.1 and 5.2), including labeling and packaging requirements. [1]

[1] Ministry of Health (Ministerio de Salud). 2019. "Technical Health Regulation (NTS) No. 153-MINSa/2019/INS - Technical Health Regulation on the Preparation, Packing and Documentation for Safe Transport of Infectious Substances".

[https://cdn.www.gob.pe/uploads/document/file/316199/Resoluci%C3%B3n_Ministerial_N__463-2019-MINSA.PDF].

Accessed 9 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2019. "MINSa approved technical health regulation on

preparation, packaging and documentation for transport". [<https://web.ins.gob.pe/es/prensa/noticia/minsa-aprobo-norma-tecnica-de-salud-sobre-preparacion-embalaje-y-documentacion-para>]. Accessed 9 December 2020.

1.3.5 Cross-border transfer and end-user screening

1.3.5a

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

Yes = 1 , No = 0

Current Year Score: 0

In Peru, there is insufficient public evidence that the government has 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. Peru's 2015 GHS Pilot Scorecard does not mention a process for end-user screening of dangerous substances. [1] The document states that "export legislation is strict and inhibits the ability to send samples outside the country for referral, confirmation, or research purposes", but it does not mention specific legislation. [1] The National Superintendent of Customs and Revenue Administration's (SUNAT) regulations regarding procedures for "Control of Restricted Items" for import and export do not list export controls for especially dangerous pathogens, toxins, and pathogens with pandemic potential. [2] Section 6.1.4 lists restrictions for veterinary products, including the import of "infectious agents, strains or others for research", stating that their importation must be expressly authorized by the National Agricultural Health Service (SENASA) and that documentation must include a copy of the importer's registration certificate. This latter requirement could constitute a type of end-user screening. [2] The regulations do not describe any further controls for the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. [2] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. [3] The websites of the Ministry of Health

(MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), Ministry of External Trade and Tourism, and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding personnel vetting. [4, 5, 6, 7, 8, 9, 10, 11]

- [1] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa]. Accessed 8 December 2020.
- [2] National Superintendent of Customs and Revenue Administration (Superintendencia Nacional de Aduanas y de Administración Tributaria). 2020. "SUNAT". [https://www.vertic.org/media/National%20Legislation/Peru/PE_Control_Mercancias_Restringidas.pdf]. Accessed 9 December 2020.
- [3] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [https://bwc-ecbm.unog.ch/state/peru]. Accessed 9 December 2020.
- [4] Ministry of External Trade and Tourism (Ministerio de Comercio Exterior y Turismo). 2020. "MINCETUR". [https://www.gob.pe/mincetur]. Accessed 9 December 2020.
- [5] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [https://www.gob.pe/concytec]. Accessed 9 December 2020.
- [6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/]. Accessed 9 December 2020.
- [7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [https://www.senasa.gob.pe/senasa/]. Accessed 9 December 2020.
- [8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [https://www.gob.pe/minsa/]. Accessed 9 December 2020.
- [9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [https://www.gob.pe/midagri]. Accessed 9 December 2020.
- [10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [https://web.ins.gob.pe/]. Accessed 8 December 2020.
- [11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [https://www.gob.pe/mindef]. Accessed 9 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

In Peru, the government has established national biosafety regulations. Peru's National Institute of Health (INS) established national biosafety regulations in 2005 via Department Resolution No. 478-2005-J-OPD/INS, which approved the "Manual for biosafety in trial, biomedical and clinical laboratories". [1, 2] The regulations set minimum biosafety standards for all testing, biomedical and clinical laboratories in the country. All laboratories are required to create a Biosafety Committee with representatives from all operational units within the institution. The committee is responsible for establishing biosafety rules

and measures at the institution. Specific tasks include: creating the operational plan for biosafety activities in the laboratory, establishing responsibilities and coordination in each operational unit, training personnel, identifying and preventing risks, enforcing biosafety measures, and establishing an monitoring and oversight system. [2] In addition, the INS, part of the Ministry of Health (MINSA), created a Biosafety and Biosecurity Committee (CBB) in 2016 to oversee its facilities. [3] The CBB is primarily responsible for overseeing biosafety within the INS, but also establishes regulations for the healthcare sector in general. Article 3 of Department Resolution No. 206-2016-J-OPE/INS tasked the CBB with creating Peru’s National Biosafety and Biosecurity Plan, but there is no public evidence that such a plan has been issued. [4] In 2019, the Healthcare Social Security agency (EsSalud) established biosafety regulations for all of its facilities. The regulations are based on INS and MINSA guidelines. [5] In 2020, the INS’ testing guidelines for COVID-19 listed the United States Centers for Disease Control and Prevention’s “Biosafety in Microbiological and Biomedical Laboratories, 5th edition” manual as a “compulsory reference”. [6]

[1] National Institute of Health (Instituto Nacional de Salud). 2005. “Resolucion Jefatural No. 478-2005-J-OPD/INS”.

[http://www.ins.gob.pe/insvirtual/images/normatividad/resoluciones/RJ%20N%C2%BA%20478-2005.PDF]. Accessed 9 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2005. “Manual for biosafety in trial, biomedical and clinical laboratories”. [https://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Manual%20de%20bioseguridad%20-%20INS.pdf]. Accessed 9 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2018. "Resolucion Jefatural No. 013-2018-J-OPE/INS".

[http://www.ins.gob.pe/insvirtual/images/normatividad/resoluciones/RJ%20N%C2%BA%20013-2018.PDF]. Accessed 9 December 2020.

[4] National Institute of Health (Instituto Nacional de Salud). 2016. “Departmental Resolution No. 206-2016-J-OPE/INS”.

[https://cdn.www.gob.pe/uploads/document/file/1064141/RJ_N%C2%BA_206-201620200729-107894-1tnhelu.PDF]. Accessed 9 December 2020.

[5] Healthcare Social Security (Seguro Social de Salud). 2019. “General Management Directive No. 19-GCPS-ESSALUD-2019”.

[https://ww1.essalud.gob.pe/compendio/pdf/0000004782_pdf.pdf]. Accessed 9 December 2020.

[6] National Institute of Health (Instituto Nacional de Salud). 2020. “Departmental Resolution No. 138-2020-J-OPE/INS”.

[https://cdn.www.gob.pe/uploads/document/file/1049714/RJ_N%C2%BA_138-202020200727-24078-11096zm.pdf]. Accessed 9 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

In Peru, there is some public evidence of an established agency responsible for the enforcement of biosafety legislation and regulations. Peru’s National Institute of Health (INS) oversees the Biosafety and Biosecurity Committee (CBB), which is primarily responsible for overseeing these issues within the INS, but also establishes regulations for the sector in general. [1] There is limited public evidence that the INS’ enforcement responsibilities extend beyond public sector laboratories. The national biosafety regulations (Department Resolution No. 478-2005-J-OPD/INS) state that the CBB is a technical support agency of the INS which is responsible for setting, providing training on, monitoring and supervising the fulfilment of the biosecurity norms and measures of related to the laboratories within the institution. The regulations also state that enforcement of the regulations is the responsibility of the director of each medical facility (Section 5.4). The regulations set minimum biosafety standards for all testing, biomedical and clinical laboratories in the country and charged the INS Biosafety Committee with disseminating the standards. [2] In 2020, the INS’ testing guidelines for COVID-19, section 6.2, stated that the INS “is responsible for checking and/or verification of compliance with requirements for quality, biosafety, structural, and

processes of public and private laboratories in order to carry out molecular testing for the SARS-CoV-2 virus". [3]

[1] National Institute of Health (Instituto Nacional de Salud). 2005. "Manual for biosafety in trial, biomedical and clinical laboratories". [https://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Manual%20de%20bioseguridad%20-%20INS.pdf]. Accessed 9 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2005. "Resolucion Jefatural No. 478-2005-J-OPD/INS". [<http://www.ins.gob.pe/insvirtual/images/normatividad/resoluciones/RJ%20N%C2%BA%20478-2005.PDF>]. Accessed 9 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2020. "Departmental Resolution No. 138-2020-J-OPE/INS". [https://cdn.www.gob.pe/uploads/document/file/1049714/RJ_N%C2%BA_138-202020200727-24078-11096zm.pdf]. Accessed 9 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

In Peru, there is insufficient public 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 National Institute of Health (INS) established national biosafety regulations in 2005 via Department Resolution No. 478-2005-J-OPD/INS. The regulations set minimum biosafety standards for all testing, biomedical and clinical laboratories in the country. All laboratories are required to create a Biosafety Committee (CB) with representatives from all operational units within the institution. The CB is responsible for establishing biosafety rules and measures at the institution. These guidelines include basic biosafety principles, biosafety practices for personnel, disinfection and sterilization, control of samples and managing laboratory waste. The CB coordinates all biosafety training activities on these topics for laboratory personnel and is required to continuously train all personnel. [1] Peru's 2015 GHS Pilot Scorecard noted that the situation regarding biosafety training was mixed, stating: "INS has a biosafety committee and a person responsible for biosafety and biosafety training. INS supervises regional laboratories and provides them training." The report also noted that, "There is no academic education on biosafety, biosecurity or dual use issues. There is in-house training on biosafety at INS but there is a need for more biosafety and biosecurity training. There is no formal train-the-trainer program". [2] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding biosafety training. [3] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding biosafety training. [4, 5, 6, 7, 8, 9, 10]

[1] National Institute of Health (Instituto Nacional de Salud). 2005. "Resolucion Jefatural No. 478-2005-J-OPD/INS". [<http://www.ins.gob.pe/insvirtual/images/normatividad/resoluciones/RJ%20N%C2%BA%20478-2005.PDF>]. Accessed 9 December 2020.

[2] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHS+A+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[3] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.

[4] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[5] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.

[6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru".

[<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA".

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".

[<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 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

In Peru, there is no 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. In 2016, the National Council of Science, Technology and Technological Innovation issued its most recent National Research and Development Census. It did not mention dual-use research. [1] Legislative Decree No. 1060 of 2008 regulates the National System of Agricultural Innovation. Article 8 instructs the system to create and maintain "an updated inventory that includes completed and ongoing research and transfer of agricultural technology". The decree does not specifically mention dual-use research. [2] Peru's 2015 GHS Pilot Scorecard noted that the country did not have any academic education on dual-use issues. [3] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding dual-use research. [4] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. [5, 6, 7, 8, 9, 10, 11]

- [1] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2016. "I Censo Nacional de Investigación y Desarrollo a Centros de Investigación 2016". [https://portal.concytec.gob.pe/images/publicaciones/censo_2016/libro_censo_nacional.pdf]. Accessed 9 December 2020.
- [2] President of the Republic (Presidente de la Republica). 2008. "Legislative Decree No. 1060 of 2008". [https://www.senasa.gob.pe/senasa/descargasarchivos/jer/DIR_SECIN/Dec.%20Leg.%201072.pdf]. Accessed 9 December 2020.
- [3] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [4] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.
- [5] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.
- [6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.
- [7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.
- [8] Ministry of Health (Ministerio de Salud). 2020. "MINSa". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.
- [10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.
- [11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 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

In Peru, there is no publicly available evidence that the government has legislation and/or regulation requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. In 2016, the National Council of Science, Technology and Technological Innovation issued its most recent National Research and Development Census. It did not mention dual-use research. [1] Legislative Decree No. 1060 of 2008 regulates the National System of Agricultural Innovation. Article 8 instructs the system to create and maintain "an updated inventory that includes completed and ongoing research and transfer of agricultural technology". The decree does not specifically mention dual-use research. [2] Peru's 2015 GHS Pilot Scorecard noted that the country did not have any academic education on dual-use issues. [3] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding dual-use research. [4] The websites of the Ministry of Health (MINSa), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding legislation and/or regulation requiring oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use

research. [5, 6, 7, 8, 9, 10, 11]

- [1] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2016. "I Censo Nacional de Investigación y Desarrollo a Centros de Investigación 2016". [https://portal.concytec.gob.pe/images/publicaciones/censo_2016/libro_censo_nacional.pdf]. Accessed 9 December 2020.
- [2] President of the Republic (Presidente de la Republica). 2008. "Legislative Decree No. 1060 of 2008". [https://www.senasa.gob.pe/senasa/descargasarchivos/jer/DIR_SECIN/Dec.%20Leg.%201072.pdf]. Accessed 9 December 2020.
- [3] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [4] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.
- [5] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.
- [6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.
- [7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.
- [8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.
- [10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.
- [11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 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

In Peru, there is no publicly available evidence that the government has an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. Peru's National Institute of Health (INS) oversees the Biosafety and Biosecurity Committee (CBB), which is primarily responsible for overseeing these issues within the INS, but also establishes regulations for the sector in general. Article 3 of Department Resolution No. 206-2016-J-OPE/INS also tasks the Committee with creating the National Biosafety and Biosecurity Plan. There is no public evidence that such a plan has been issued, nor do CBB regulations task it with overseeing dual-use research. [1] Peru's 2015 GHS Pilot Scorecard noted that the country did not have any academic education on dual-use issues. [2] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding dual-use research. [3] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological

Innovation do not contain additional public information regarding an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. [4, 5, 6, 7, 8, 9, 10]

- [1] National Institute of Health (Instituto Nacional de Salud). 2016. "Departmental Resolution No. 206-2016-J-OPE/INS". [https://cdn.www.gob.pe/uploads/document/file/1064141/RJ_N%C2%BA_206-201620200729-107894-1tnhelu.PDF]. Accessed 9 December 2020.
- [2] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [3] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.
- [4] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.
- [5] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.
- [6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed 9 December 2020.
- [7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.
- [8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.
- [10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 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

In Peru, there is insufficient publicly available evidence that the government has legislation and/or regulation requiring the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold. Peru has legislation that controls the introduction and use of genetically modified organisms (GMO), which includes synthesized and recombinant DNA. Law No. 27104 of 1999 on the Prevention of Risks from the Use of Biotechnology implicitly includes all activities related to recombinant DNA and requires authorization for the introduction or use of such organisms. Article 3 states which activities are covered by the law: "research, production, introduction, manipulation, transport, storage, conservation, exchange sales, controlled use, and liberation of GMOs, under controlled conditions". Article 4 excludes activities related to the human genome, human vaccines, and genetic modifications achieved by traditional means. Authorization of covered activities can only be granted if a risk analysis determines that there is no risk to public health or safety or the environment. The legislation enshrines the precautionary principle in the sector, stating in Article 10, "Precautionary Principle - The State, through the competent organizations, will evaluate the negative impacts on human health, the environment and biological diversity, that the intentional liberation of a specific GMO could cause, and if threats

exist, its liberation and use will not be authorized, as long as such a measure is technically justifiable and does not constitute a technical obstacle or hidden restriction to trade". [1] Article 12 prohibits the use of all GMOs in biological weapons and any practices harmful to the environment and human health. [1] Law No. 29811 and Supreme Decree No. 008-2012-MINAM established a 10-year moratorium on the entry or production of GMOs, but it only applies to production activities and not controlled research. [2, 3] None of the aforementioned regulations require screening of synthesized DNA prior to sale. [1, 2, 3] The Ministry of the Environment's Center for Information Exchange on Biotechnology Safety in Peru (CIISB) lists more than 20 Peruvian Technical Standards (NTP) and their modifications related to detecting GMOs by screening for specific gene sequences, but these standards do not require screening of synthesized DNA. [4] Although Peru submitted Confidence Building Measures reports in 2020, 2018 and 2016, access to the reports is restricted (not available to the public), so it is not known what information they contain regarding regulations requiring the screening of synthesized DNA. [5] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, National Agricultural Health Service (SENASA), Ministry of Defense, Verification Research, Training and Information Centre (VERTIC), and the National Council of Science, Technology and Technological Innovation do not contain additional public information regarding legislation and/or regulation requiring the screening of synthesized DNA against lists of known pathogens and toxins before it is sold. [6, 7, 8, 9, 10, 11, 12]

[1] President of the Republic (Presidente de la Republica). 1999. "LEY N° 27104 LEY DE PREVENCIÓN DE RIESGOS DERIVADOS DEL USO DE LA BIOTECNOLOGIA".

[http://www.vertic.org/media/National%20Legislation/Peru/PE_Ley_Prevenccion_Riesgos_Biotecnologia_27104.pdf]. Accessed 9 December 2020.

[2] President of the Republic (Presidente de la Republica). 2011. "Ley N° 29811 - Ley que establece la moratoria al ingreso y producción de organismos vivos modificados". [<http://extwprlegs1.fao.org/docs/pdf/per110027.pdf>]. Accessed 9 December 2020.

[3] President of the Republic (Presidente de la Republica). 2012. "DECRETO SUPREMO N° 008-2012-MINAM". [<http://extwprlegs1.fao.org/docs/pdf/per117809.pdf>]. Accessed 9 December 2020.

[4] Ministry of the Environment (Ministerio del Ambiente). 2020. "Center for Information Exchange on Biotechnology Safety in Peru (CIISB)". [<https://bioseguridad.minam.gob.pe/normatividad/normas-tecnicas/normas-tecnicas-peruanas/>]. Accessed 9 December 2020.

[5] United Nations Office at Geneva. 2020. "BWC Electronic Confidence Building Measures Portal". [<https://bwc-ecbm.unog.ch/state/peru>]. Accessed 9 December 2020.

[6] Verification Research, Training and Information Centre (VERTIC). 2020. "Peru". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>].

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[10] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[11] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[12] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. "CONCYTEC". [<https://www.gob.pe/concytec>]. Accessed 9 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: 2

In Peru, the national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests: polymerase chain reaction (PCR) testing for Influenza virus (flu); serology for HIV; microscopy for mycobacterium tuberculosis (tuberculosis/TB); rapid diagnostic testing for plasmodium spp. (malaria); and bacterial culture for Salmonella enteritidis serotype Typhi (typhoid). According to the Global Health Security Agenda (GHSA) pilot assessment carried out in

2015, Peru can conduct the core tests for influenza (by PCR). [1] The National Institute of Health (INS) can test for HIV via serology. [2, 3] The INS can also test for drug-resistant tuberculosis via microscopy. [4] The Ministry of Health's (MINSA) 2015 guidelines for malaria testing and treatment specify the use of rapid diagnostic testing and 2018 inventories show that MINSA had procured these tests. [5, 6] In 2016, the INS issued updated guidelines for diagnostic testing for salmonella via bacterial culture. [7] According to the GHS pilot assessment, Peru did not have the capacity to perform diagnostic testing for polio and sent specimens to the United States for testing. [1]

[1] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHS+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2010. "MANUAL DE PROCEDIMIENTOS PARA EL DIAGNÓSTICO SEROLÓGICO DE LAS ZONOSIS PARASITARIAS".

[[https://www.ins.gob.pe/insvirtual/images/otrpubs/pdf/Libro_Zoonosis_ok21.01\[1\].pdf](https://www.ins.gob.pe/insvirtual/images/otrpubs/pdf/Libro_Zoonosis_ok21.01[1].pdf)]. Accessed 9 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2001. "MANUAL DE PROCEDIMIENTOS PARA DIAGNÓSTICODEL VIRUS DE LA INMUNODEFICIENCIA HUMANA TIPO 1 (VIH-1) POR INMUNOFUORESCENCIA INDIRECTA".

[https://bvs.ins.gob.pe/insprint/SALUD_PUBLICA/NOR_TEC/29.pdf]. Accessed 9 December 2020.

[4] Solari, Lely, et al. 2011. "Cost analysis of rapid methods for diagnosis of multidrug resistant Tuberculosis in different epidemiologic groups in Perú". [<https://rpmesp.ins.gob.pe/index.php/rpmesp/article/view/519/2640>]. Accessed 9 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2015. "Manual de Registro y Codificación de la Atención en la Consulta Externa Estrategia Sanitaria Nacional de Prevención y Control de Enfermedades Metaxénicas y otras transmitidas por vectores".

[<http://bvs.minsa.gob.pe/local/MINSA/3414.pdf>]. Accessed 9 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2018. "Supply management for strategic healthcare resources".

[ftp://ftp.minsa.gob.pe/sismed/ftp_carga/REUNION%20FORTALECIMIENTO%20SISMED%20EN%20EL%20MARCO%20DE%20LAS%20ESTRATEGIAS%20DEL%2012%20AL%2015%20MARZO%202018/REUNION%20TECNICA%2012%20_15%20MARZO%202018/REUNION%20DEL%2012_15_03_18/Dia%202/CENARES%20SITUAC.%20ABASTECIMIENTO%20II%20TRIM%202018.pdf]. Accessed 9 December 2020.

[7] National Institute of Health (Instituto Nacional de Salud). 2016. "Culture for identification of Salmonella spp.".

[https://antimicrobianos.ins.gob.pe/images/contenido/documentos/nacionales/Cultivo_para_identificaci%C3%B3n_de_Salmonella_spp.pdf]. Accessed 9 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: 1

In Peru, there is public evidence of disease-specific plans that deal with testing during a public health emergency (PHE), but there is insufficient evidence of a plan that covers all novel pathogens and includes considerations for scaling capacity, and defining goals for testing. Peru's response plans for Ebola (2015), influenza and other respiratory viruses (2014-15), and Zika (2016) include varying considerations for testing during a PHE. [1, 2, 3] The 2015 Ebola plan provides very limited consideration of testing, establishing a goal to "reinforce laboratory surveillance in order to establish timely diagnosis of cases compatible with EVD [Ebola virus disease] in the country" (Section 6.3). Associated activities include "6.3.2 Implementation of laboratory diagnosis for the detection of the Ebola virus genome via molecular techniques" and, in terms

of scaling capacity, “6.3.4 Diffusion of protocols for taking, transporting, and sending specimens at local, regional, national and international levels”. [1] Peru’s 2014-2015 influenza and respiratory virus response plan includes greater considerations for testing, but these are mostly limited to acquiring supplies. Expected Result 5 of the plan is that “The National Public Health Laboratory Network has been strengthened for surveillance of influenza and other respiratory viruses”. Associated activities include “A5.1 Emergency procurement of inputs, materials for obtaining specimens and personal protection equipment by the National Institute of Health and Reference Laboratories”, as well as testing supplies (A5.2) and rapid testing kits (A5.3). In terms of scaling capacity, the plan states “A5.4 Provide technical assistance on handling of specimens and laboratory diagnosis to regions with outbreaks”, “A5.5 Supervise reference laboratories in diagnosis of respiratory viruses”, and “A5.6 Manage the hiring of emergency human resources for the National Reference Laboratory”. In terms of novel viruses, the plan specifically covers influenza as well as “other emerging respiratory viruses”. [2] Peru’s 2016 Zika virus preparation and response plan also includes goals related to testing, stating that the country should “implement laboratory diagnosis of the Zika virus, integrated with the national laboratory network”. Activities associated with the goal include creating a laboratory diagnostic manual for Zika virus, implementing laboratory diagnosis at the national reference laboratory first and then extending it to the laboratory network, with a focus on two regions where the virus is most likely to emerge, and strengthening the electronic laboratory reporting system at prioritized laboratories. [3] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, and National Agricultural Health Service (SENASA) do not contain additional public information regarding 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. [4, 5, 6, 7]

[1] Ministry of Health (Ministerio de Salud). 2015. “National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus”. [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2014. “National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015”. [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2016. “National Plan for Preparation and Response to the Zika virus illness – Peru, 2016”. [<ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF>]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. “MINSA”. [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[5] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. “MIDAGRI”. [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[6] National Institute of Health (Instituto Nacional de Salud). 2020. “INS”. [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. “SENASA”. [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 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

In Peru, the national reference laboratory is accredited to the ISO 15189:2014 standard. In September 2020, the National Institute of Health (INS) announced that the its clinical laboratories at the National Center for Public Health (CNSP), the

national reference laboratory, had been accredited to the NTP (Peruvian Technical Standard) ISO 15189:2014 standard by the government's National Quality Institute (INACAL). [1] In July 2019, the INS' National Center for Occupational Health and Environmental Protection for Health (CENSOPAS) achieved international accreditation to the ISO 15189:2012 standard from the Mexican Accreditation Entity (EMA). [2] The INS' National Quality Control Center (CNCC), which tests pharmaceutical products, medical devices and other health products has maintained ISO 17025 international accreditation from the ANSI-ASQ National Accreditation Board (ANAB) in the United States since 2009. [3] INS' National Center for Food and Nutrition (CENAN) has also maintained ISO 17025 international accreditation from the ANAB since 2012. [3] As an institution, the INS is accredited to the ISO 9001:2015 standard by AENOR International in Spain. [4]

[1] National Institute of Health (Instituto Nacional de Salud). 2020. "INS clinical laboratories receive ISO accreditation". [<https://web.ins.gob.pe/index.php/es/prensa/noticia/laboratorios-clinicos-del-instituto-nacional-de-salud-recipientes-acreditacion-iso>]. Accessed 10 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2020. "INS is the first institutions in the government to achieve ISO 15189 accreditation". [<https://web.ins.gob.pe/es/prensa/noticia/instituto-nacional-de-salud-ins-es-la-primera-institucion-del-estado-en-lograr>]. Accessed 10 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2020. "Laboratory accreditation". [<https://web.ins.gob.pe/es/acerca-del-ins/gestion-de-la-calidad/acreditaciones-y-certificaciones/acreditacion-de-laboratorios>]. Accessed 10 December 2020.

[4] National Institute of Health (Instituto Nacional de Salud). 2020. "Accreditations and certifications". [<https://web.ins.gob.pe/es/prensa/noticia/acreditaciones-y-certificaciones>]. Accessed 10 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

In Peru, the national reference laboratory, the National Institute of Health's (INS) National Center for Public Health (CNSP), is subject to external quality assurance review. In 2016, the INS reported that the CNSP had participated in international quality assurance reviews since 1995. For example, the CNSP coordinates and participates in international malaria proficiency testing with Argentina, Brazil, Bolivia, Colombia, Chile, Ecuador, French Guyana, Guyana, Paraguay, and Venezuela. [1] In addition, the INS states that its laboratories participate in external quality assurance reviews organized by national and international organizations, which are coordinated at an institutional level by the INS' Inter-laboratory Testing Committee, created in 2011 by Departmental Resolution No. 069-2011-J-OPE/INS. [2]

[1] National Institute of Health (Instituto Nacional de Salud). 2016. "Quality management system at the National Institute of Health". [<https://repositorio.ins.gob.pe/xmlui/bitstream/handle/INS/959/Sistema%20de%20Gesti%C3%B3n%20de%20la%20Calidad-2016.pdf?sequence=1&isAllowed=y>]. Accessed 10 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2020. "Inter-laboratory Testing Committee". [<https://web.ins.gob.pe/es/acerca-del-ins/comites-del-ins/comite-ensayos-interlaboratorios>]. Accessed 10 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

In Peru, there is insufficient evidence that Peru's public health system has a nationwide specimen transport system. National Institute of Health (INS) Regulation PR.T-CNLSP-001 sets requirements for transport of biological samples in the public health laboratory system. These requirements include a triple packing system, clear interior and exterior labelling, and inclusion of diagnostic information. The transport method chosen must be "fast, affordable, safe and trustworthy". [1] Guidelines specific to certain diseases do not mention a nationwide specimen transport system either. For example, guidelines issued in 2019 for specimens for diagnosis of respiratory illnesses (ITT-CNSP-385) do not mention anything about transport methods or couriers, although they provide extensive guidance on labeling and packaging. [2, 3] The National Agricultural Health Service (SENASA) also sets requirements for shipping biological samples, which include triple packing and labeling. [4] Both systems rely on private shippers. [1, 4] Peru's 2015 GHS Pilot Scorecard noted that, "there are no national requirements for using certified couriers when transporting infectious pathogens locally" and the transport system "is ad hoc, and not formalized with documented processes". [5] Peru's 2018 International Health Regulations (IHR) State Party self-assessment annual report scored the country at 60% for indicator "C.5.1 Specimen referral and transport system". [6] The websites of the Ministry of Health (MINSA), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, and National Agricultural Health Service (SENASA) do not contain additional public information regarding a nationwide specimen transport system. [7, 8, 9, 10]

[1] National Institute of Health (Instituto Nacional de Salud). 2000. "ENVIO DE MUESTRAS BIOLÓGICAS EN LA RED NACIONAL DE LABORATORIOS DE REFERENCIA EN SALUD PÚBLICA".

[[http://www2.congreso.gob.pe/sicr/cendocbib/con4_uibd.nsf/811FE64E8A6FB17005257A85005CD938/\\$FILE/PR.T-CNLSP-001ed01_enviodemuestras.pdf](http://www2.congreso.gob.pe/sicr/cendocbib/con4_uibd.nsf/811FE64E8A6FB17005257A85005CD938/$FILE/PR.T-CNLSP-001ed01_enviodemuestras.pdf)]. Accessed 10 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2019. "Regulation ITT-CNSP-385".

[[https://web.ins.gob.pe/sites/default/files/DIRECTIVA%20CNSP/ITT-CNSP-385%20ED.02-virus%20respiratorios-c%20\[1\].pdf](https://web.ins.gob.pe/sites/default/files/DIRECTIVA%20CNSP/ITT-CNSP-385%20ED.02-virus%20respiratorios-c%20[1].pdf)]. Accessed 10 December 2020.

[3] National Institute of Health (Instituto Nacional de Salud). 2020. "Communication on technical criteria for the shipment and transport of specimens". [<https://web.ins.gob.pe/index.php/es/prensa/noticia/comunicado-criterios-tecnicos-para-el-envio-y-transporte-de-las-muestras-al>]. Accessed 10 December 2020.

[4] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2014. "INDICACIONES SOBRE ENVIO DE MUESTRAS BIOLÓGICAS PARA EXÁMENES BACTERIOLÓGICOS DE ENFERMEDADES MÁS FRECUENTES EN BOVINOS DE NUESTRO MEDIO". [<https://www.senasa.gob.pe/senasa/descargasarchivos/2014/12/Indicaciones-sobre-envio-de-muestras-biologicas-para-examenes-bacteriologicos-de-enfermedades-mas-frecuentes-en-bovinos-de-nuestro-medio.pdf>]. Accessed 10 December 2020.

[5] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHS+A+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[6] World Health Organization. 2018. "Peru - IHR State Party self-assessment annual reports".

[<https://extranet.who.int/sph/country/193>]. Accessed 9 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA".

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. “MINSa”. [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. “MIDAGRI”. [<https://www.gob.pe/midagri/>]. Accessed 9 December 2020.

[10] National Institute of Health (Instituto Nacional de Salud). 2020. “INS”. [<https://web.ins.gob.pe/>]. Accessed 8 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

In Peru, there is no public evidence of a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. In practice, during the COVID-19 pandemic the government’s National Institute of Health (INS) has more than 30 academic and private laboratories to carry out testing to supplement the capacity of the public health system. [1] However, there is no public evidence that these activities have been guided by or are outlined in a broader plan that would apply to multiple diseases. [1] In addition, INS has authorized additional government laboratories to carry out COVID-19 testing, such as the laboratory at the Naval Hospital. [2] Although Peru’s response plans for Ebola (2015), influenza and other respiratory viruses (2014-15), and Zika (2016) include varying considerations for testing during a public health emergency, none includes specific plans for rapidly authorizing or licensing laboratories to supplement capacity. [3, 4, 5] The influenza and Zika virus plans discuss transferring technology and expertise from the national reference laboratory to regional laboratories, but do not discuss licensing additional laboratories. [4, 5] The websites of the Ministry of Health (MINSa), the National Institute of Health (INS) (including the national laboratory network), Ministry of Agricultural Development and Irrigation, and National Agricultural Health Service (SENASA) do not contain additional public information regarding a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system. [6, 7, 8, 9]

[1] National Institute of Health (Instituto Nacional de Salud). 2020. “National and private laboratories that carry out testing”. [<https://web.ins.gob.pe/es/prensa/noticia/laboratorios-nacionales-y-privados-que-desarrollan-diagnostico-de-pruebas/>]. Accessed 10 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2020. “INS authorizes Naval Hospital to perform COVID-19 molecular testing”. [<https://web.ins.gob.pe/es/prensa/noticia/ins-autoriza-hospital-naval-para-realizar-pruebas-moleculares-contra-covid-19/>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2015. “National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus”. [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2014. “National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015”. [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2016. “National Plan for Preparation and Response to the Zika virus illness – Peru, 2016”. [<ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF>]. Accessed 10 December 2020.

[6] National Institute of Health (Instituto Nacional de Salud). 2020. “INS”. [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[7] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA".

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[9] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".

[<https://www.gob.pe/midagri>]. Accessed 9 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: 2

In Peru, there is evidence of ongoing event-based surveillance (EBS) for infectious disease and evidence that the data is being analyzed on a daily basis. The Health Emergency Operations Center ("COE Salud") is managed by the Ministry of Health's (MINSA) General Directorate of Disaster Risk Management and National Defense for Health (DIGERD). [1] COE Salud's 2018 Organization and Operations Manual states that the center uses an internet-based platform (SIREED) to log and analyze events. COE Salud's Monitoring Unit is responsible for logging events of interest and receives information from official and non-official sources, which are analyzed on a daily basis. [2] MINSA also carries out EBS as part of its epidemiological surveillance activities, monitoring news and social media for reports that could indicate infectious disease and publishing daily summaries of relevant reports. [3] MINSA's 2014-2015 Influenza Response Plan calls for authorities to monitor sales of medicines used to treat respiratory infections as a means to detect outbreaks. [4] Peru's 2015 GHS Pilot Scorecard noted that the country "has demonstrated experience in event-based surveillance". [5] In addition to the COE Salud, the National Emergency Operations Center (COEN) also carries out EBS across the country. The COEN is the general emergency operations center for all emergencies and coordinates with all government ministries. [6] Protocol No. 01 of the COEN describes the process for receiving and disseminating event reports in the organization. Protocol No. 07 on risk analysis also includes EBS activities. [6] Peru's 2018 International Health Regulations (IHR) State Party self-assessment annual report scored the country at 80% for indicator "C.6.1 Early warning function: indicator- and event-based surveillance". [7]

[1] Ministry of Health (Ministerio de Salud). 2020. "General Directorate of Disaster Risk Management and National Defense for Health". [<http://www.minsa.gob.pe/digerd/>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2018. "Organización y Funcionamiento del Centro de Operaciones de Emergencias y de los Espacios de Monitoreo de Emergencias y Desastres del Sector Salud".

[<http://bvs.minsa.gob.pe/local/MINSA/4451.pdf>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Surveillance of reports in media".

[<https://www.dge.gob.pe/portalnuevo/centros/alerta-y-respuesta/alerta-y-respuesta/#tab-content-3>]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015".

[<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[5] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHS+A+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d->

812a-383051b1bafa]. Accessed 8 December 2020.

[6] National System of Civil Defense (Sistema Nacional de Defensa Civil). 2004. “Manual de Operaciones”. [http://bvpad.indeci.gob.pe/doc/pdf/esp/doc507/doc507-contenido.pdf]. Accessed 10 December 2020.

[7] World Health Organization. 2018. “Peru - IHR State Party self-assessment annual reports”. [https://extranet.who.int/sph/country/193]. Accessed 9 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: 1

In Peru, there is publicly available evidence that the country reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years. On November 5, 2020, the Pan American Health Organization (PAHO) stated that Peru had reported its first case of diphtheria in 20 years. [1] The Ministry of Health’s (MINSa) report was issued on October 27, 2020. [2] The WHO’s Disease Outbreak News (DON) site lists Peru’s last report of a potential PHEIC as Oropouche virus in June 2016 and Zika in April 2016. [3] The websites of MINSa, PAHO, and WHO DON do not contain additional public information regarding Peru reporting a PHEIC or that the country reported COVID-19 as a PHEIC. [4, 5, 6]

[1] Pan American Health Organization. 2020. “Diphtheria Alert”. [https://www.paho.org/es/noticias/5-11-2020-alerta-difteria]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. “Epidemiological Alert AE-025-2020”. [https://www.dge.gob.pe/epublic/uploads/alertas/alertas_202025.pdf]. Accessed 10 December 2020.

[3] World Health Organization. 2020. “Disease Outbreak News – Peru”. [https://www.who.int/csr/don/archive/country/per/en/]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. “MINSa”. [https://www.gob.pe/minsa/]. Accessed 9 December 2020.

[5] Pan American Health Organization. 2020. “Peru”. [https://www.paho.org/es/peru]. Accessed 10 December 2020.

[6] World Health Organization. 2020. “Disease Outbreak News”. [https://www.who.int/csr/don/archive/year/2020/en/]. Accessed 10 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

In Peru, the government operates an electronic reporting surveillance system at both the national and the sub-national level. The Ministry of Health (MINSa) has used a computer program (NOTI) to report epidemiological surveillance data since at least 1999. [1] In 2014, MINSa migrated from the desktop-based NOTI application to a web-based version called “Notiweb”. [2] MINSa reported that all 32 regional health offices in the country were using the web-based electronic reporting surveillance system. [2] Guidelines for reporting specific diseases corroborate the system’s use. For example, MINSa’s 2016 Technical Health Regulation for Epidemiological Surveillance and Laboratory Diagnosis of Dengue, Chikungunya and other Arboviruses in Peru shows that notification of cases from sub-national to national levels occurs via the web-based electronic

reporting surveillance system. [3]

- [1] Ministry of Health (Ministerio de Salud). 1999. "NOTI Versión 3.1". [http://orasconhu.org/documentos/Anexo%2014k%20PAMAFRO%20PERU%2011%20AGOSTO%2009.doc]. Accessed 10 December 2020.
- [2] Ministry of Health (Ministerio de Salud). 2014. "2014 Annual Report – General Directorate of Epidemiology". [http://bvs.minsa.gob.pe/local/MINSA/3265.pdf]. Accessed 10 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2016. "Technical Health Regulation for Epidemiological Surveillance and Laboratory Diagnosis of Dengue, Chikungunya and other Arboviruses in Peru". [http://bvs.minsa.gob.pe/local/MINSA/4720.pdf]. Accessed 10 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: 1

In Peru, electronic reporting surveillance systems collect ongoing, real-time laboratory data. The National Institute of Health (INS) operates the NETLAB system which laboratories across the country use to report test results to both authorities and patients. The system operates in real time, providing up-to-date results to both groups and can send email and SMS alerts. [1, 2] INS reports that it upgraded to version 2 of NETLAB in order to improve "information management for timely analysis". [3] Regarding surveillance and laboratory data systems, Peru's 2015 Global Health Security Agenda Pilot Scorecard noted: "There is a very comprehensive web-based laboratory information system (WHONet/NetLab) that manages patient AMR information, results, epidemiological information and other elements. Information from NetLab is accessible to the MoH, epidemiologists, and others, as authorized". [4]

- [1] National Institute of Health (Instituto Nacional de Salud). 2020. "Netlab". [https://web.ins.gob.pe/es/salud-publica/idades-funcionales/netlab]. Accessed 10 December 2020.
- [2] Vargas-Herrera, Javier, Segovia-Juarez, José, & Garro Nuñez, Gladys María. (2015). Sistema de información de la red nacional de laboratorios de salud pública en el Perú (Netlab). Revista Peruana de Medicina Experimental y Salud Publica, 32 [2], 378-384. [http://www.scielo.org.pe/scielo.php?script=sci_arttext&pid=S1726-46342015000200026&lng=es&tlng=es]. Accessed 10 December 2020.
- [3] National Institute of Health (Instituto Nacional de Salud). 2020. "Information Management". [https://web.ins.gob.pe/es/salud-publica/idades-funcionales/gestion-de-la-informacion]. Accessed 10 December 2020.
- [4] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa]. Accessed 8 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

In Peru, there is public evidence that electronic health records (EHR) are in use, although the government is in the process of implementing a national EHR system. In 2013, Peru passed Law No. 30024, which established Peru's electronic health records system. The law requires all EHR systems to be connected with the Ministry of Health's (MINSa) national database (RENHICE) and accredited by the ministry. [1] In 2018, MINSa was still working to finalize the connection and accreditation procedures for RENHICE. [2] In July 2019, MINSa issued its Implementation Plan for RENHICE, dividing the process into three phases in order to achieve "advanced" implementation of EHR by 2027. In terms of the population covered, MINSa's goal for 2020 is 10%, and 30% by 2021. [3, 4] MINSa's EHR system and platform is called e-QHALI and has been rolled out in some facilities in different parts of Peru. [5, 6] The websites of the Ministry of Health (MINSa) and the National Institute of Health (INS) (including the national laboratory network) do not contain additional public information regarding use of electronic health records (EHR). [7, 8]

[1] President of the Republic (Presidente de la Republica). 2013. "Ley No. 30024".

[[http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/\\$FILE/30024.pdf](http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/$FILE/30024.pdf)]. Accessed 10 December 2020.

[2] Gestion. 2018. "Startups: historias clínicas electrónicas". [<https://gestion.pe/opinion/startups-historias-clinicas-electronicas-236667>]. Accessed 10 December 2020.

[3] Salud Digital. 2020. "Peru's Health Ministry approves plan to implement RENHICE". [<https://saluddigital.com/plataformas-digitales/ministerio-de-salud-del-peru-aprueba-el-plan-de-implementation-del-renhice/>]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2019. "Ministerial Resolution No. 618-2019/MINSa".

[https://cdn.www.gob.pe/uploads/document/file/340420/Resoluci%C3%B3n_Ministerial_N__618-2019-MINSA.PDF]. Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). "Toward digital healthcare".

[https://portal.mtc.gob.pe/comunicaciones/tic/sesiones/Sesi%C3%B3n_12.12.17/Estrategia.Digital.MINSA.pdf]. Accessed 10 December 2020.

[6] Ministry of Health (Ministerio de Salud). "E-qhali (Historia clínica Electrónica)".

[<https://www.dirislimanorte.gob.pe/implementan-historias-clinicas-electronicas-en-los-establecimientos-de-salud-de-lima-norte/>]. Accessed 10 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2020. "MINSa". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[8] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 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

In Peru, the law requires that the national public health system has access to electronic health records (EHR) of individuals in the country. Law No. 30024 of 2013 established Peru's electronic health records system and requires that the Ministry of Health have access to patient EHR (Section 2.1 and 5.2). [1] The law requires all EHR systems to be connected with the Ministry of Health's national database and accredited by the ministry. This interconnection is meant to provide universal access to records (with patient consent) to all public and private medical providers. [1]

[1] President of the Republic (Presidente de la Republica). 2013. "Ley No. 30024".

[[http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/\\$FILE/30024.pdf](http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/$FILE/30024.pdf)].

Accessed 10 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: 1

In Peru, the law requires that electronic health record data in Peru be standardized. Article 25 of the regulations (Supreme Decree No. 039-2005-SA) for Law No. 30024 of 2013 places the obligation to standardize data and systems on the healthcare provider. The regulations mention ISO 27001 as a standard for the information systems. [1] ISO 27001 establishes requirements for an information security management system (ISMS). An ISMS is "a systematic approach to managing sensitive company information so that it remains secure. It includes people, processes and IT systems by applying a risk management process". [2] Law No. 30024 of 2013 requires all EHR systems to be connected with the Ministry of Health's (MINSA) national database and accredited by the ministry. Article 4 states that providers must "standardize data and clinical information" as well as the "characteristics and functionality of information systems" in order to achieve interoperability in the sector. [3] MINSA's e-QHALI EHR system and platform integrates with the ministry's other electronic healthcare systems. [4]

[1] President of the Republic (Presidente de la Republica). 2015. "Decreto Supremo n° 039-2015-sa".

[<https://busquedas.elperuano.pe/normaslegales/aprueba-el-reglamento-de-la-ley-n-30024-ley-que-crea-el-re-decreto-supremo-n-039-2015-sa-1324291-4/>]. Accessed 10 December 2020.

[2] International Organization for Standardization. 2018. "ISO/IEC 27000 family - Information security management systems". [<https://www.iso.org/isoiec-27001-information-security.html>]. Accessed 10 December 2020.

[3] President of the Republic (Presidente de la Republica). 2013. "Ley No. 30024".

[[http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/\\$FILE/30024.pdf](http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/$FILE/30024.pdf)]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). "Toward digital healthcare".

[https://portal.mtc.gob.pe/comunicaciones/tic/sesiones/Sesi%C3%B3n_12.12.17/Estrategia.Digital.MINSA.pdf]. Accessed 10 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: 1

In Peru, there is some public 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). Public evidence of data sharing appears to be ad hoc, and the websites of the Ministry of Health (MINSA), the Ministry of Agricultural Development and Irrigation, the Ministry of Environment, the National Agricultural Health Service (SENASA), and the National Health Institute (INS) (including the national laboratory network) do not contain publicly available evidence regarding established mechanisms such as databases, standing or event-specific committees, or agreements at the relevant ministries responsible

for animal, human, and wildlife surveillance to share data. [1, 2, 3, 4, 5] In terms of data sharing that does occur, MINSA's 2014-2015 Influenza Preparation and Response Plan set a goal to establish "coordination with SENASA to receive information from the National Network for surveillance of wild migratory birds, domestic birds, and pigs". According to the plan, SENASA and offices within MINSA are supposed to have "coordination meetings". [6] According to a 2005 press release from MINSA on cases of anthrax in animals, if cases are confirmed in animals, then "SENASA communicates to MINSA so that it reinforces surveillance of cases anthrax in humans". [7] MINSA Epidemiological Bulletins from 2018 contain data from SENASA regarding cases of rabies in wild animals monitored by the agency. The bulletins state that local health authorities coordinated with SENASA and local governments on response efforts related to the cases. [8] Also in 2018, MINSA reported that SENASA notified it of cases of Type A avian influenza among rescued wild birds and the agencies investigated the cases jointly. MINSA's report recommended that SENASA monitor the bird refuge and share relevant laboratory results with the relevant institutions until the end of the quarantine period, as well as include wild birds in the area in avian influenza surveillance programs. [9] SENASA's 2012 Manual of Organization and Functions describes animal health positions inside the agency that create epidemiological reports and share data with MINSA and other organizations. [10] Peru's 2015 GHS Pilot Scorecard noted, "There is good coordination of efforts and sharing of information between the human, food, veterinary, and environmental laboratory agencies. Decrees and MOUs are in place". [11]

[1] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[3] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[4] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[5] Ministry of the Environment (Ministerio del Ambiente). 2020. "MINAM". [<https://www.gob.pe/minam>]. Accessed 9 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015". [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2005. "Anthrax can be avoided". [<https://www.gob.pe/institucion/minsa/noticias/42976-carbunco-puede-evitarse-consumiendo-carne-procedente-de-lugares-seguros-y-vacunando-ganado>]. Accessed 10 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2018. "Epidemiological Bulletin Week 26". [<https://www.dge.gob.pe/portal/docs/vigilancia/boletines/2018/26.pdf>]. Accessed 10 December 2020.

[9] Ministry of Health (Ministerio de Salud). 2018. "Epidemiological Bulletin Week 46". [<https://www.dge.gob.pe/portal/docs/vigilancia/boletines/2018/46.pdf>]. Accessed 10 December 2020.

[10] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2012. "Manual of Organization and Functions". [https://www.senasa.gob.pe/senasa/descargasarchivos/jer/GESTION/anexo%20CAP-CC-MOF.%20archivo%20general%20noviembre%202012_2.pdf]. Accessed 10 December 2020.

[11] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHS+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 1

In Peru, the government makes de-identified health surveillance data on disease outbreaks publicly available via reports (or other format) on government websites. The Ministry of Health (MINSA) publishes a weekly epidemiological bulletin with de-identified health surveillance data on ongoing outbreaks that is available at its website. [1, 2] A recent 2020 bulletin reported data on outbreaks of respiratory infections, COVID-19, measles, rubella, food-borne illnesses, and others. [2] In addition, MINSA maintains the Virtual Health Situation Room, which provides data on ongoing disease surveillance. The Situation Room is an interactive online system and map that shows information for many illnesses, including number of cases, number of deaths, cumulative cases per year, rate of occurrence and percentage of confirmed cases. The system is designed to provide information for policymakers as well as epidemiologists. [3, 4]

[1] Ministry of Health (Ministerio de Salud). 2020. "Epidemiological Bulletins".

[<https://www.dge.gob.pe/portalnuevo/publicaciones/boletines-epidemiologicos/>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Bulletin Week 45".

[https://www.dge.gob.pe/epipublic/uploads/boletin/boletin_202045.pdf]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Situation Room". [<http://www.dge.gob.pe/salasisituacional/>]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. "Current situation for Dengue".

[https://public.tableau.com/views/NOTISERIES_15580211651890/Dashboard1?:embed=y&:display_count=y&publish=yes?:embed=y&:showVizHome=no&:host_url=https%3A%2F%2Fpublic.tableau.com%2F&:embed_code_version=3&:toolbar=yes&:animate_transition=yes&:display_static_image=no&:display_spinner=no&:display_overlay=yes&:display_count=yes&publish=yes&:loadOrderID=0]. Accessed 10 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

In Peru, the government makes de-identified health surveillance data on COVID-19 publicly available via daily reports (or other format) on government websites. The Ministry of Health (MINSA) publishes a daily epidemiological bulletin with de-identified health surveillance data on COVID-19 cases, testing rates, deaths, and recoveries, among other information. [1, 2] In addition, MINSA provides updated information on case numbers, hospitalizations, availability of beds, deaths via an interactive online dashboard. [3]

[1] Ministry of Health (Ministerio de Salud). 2020. "COVID-19 Situation in Peru".

[<https://www.dge.gob.pe/portalnuevo/covid-19/covid-cajas/situacion-del-covid-19-en-el-peru/>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Coronavirus Report 8 December 2020".

[<https://www.dge.gob.pe/portal/docs/tools/coronavirus/coronavirus081220.pdf>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Situation Room COVID-19 Peru". [https://covid19.minsa.gob.pe/sala_situacional.asp]. Accessed 10 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

In Peru, there is legislation and regulations that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. Law No. 29733 of 2011 protects personal data in the country and specifically includes health data in its definition of "sensitive data". Article 14 provides some limits to the protection of health data, especially during emergencies or when necessary for treatment, but specifically states that epidemiological study data must be sufficiently de-identified. [1] The Ministry of Health's (MINSa) publicly available epidemiological reports contain de-identified data. [2, 3] In addition, in 2017, MINSa issued Administrative Directive No. 227-MINSa/2017/OGTI in 2017 to safeguard the confidentiality of identifiable health information for individuals. The directive deals with overall information security at MINSa, and specifically mentions the responsibility to protect patient confidential data (Section 6.1.3). [4] In November 2020, MINSa issued a press release reminding healthcare facilities of their obligation to maintain the confidentiality of patient data and the penalties associated with violations of these regulations. [5]

[1] President of the Republic (Presidente de la Republica). 2011. "Ley de protección de datos personales LEY Nº 29733". [http://www.pcm.gob.pe/transparencia/Resol_ministeriales/2011/ley-29733.pdf]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Bulletin Week 45". [https://www.dge.gob.pe/epipublic/uploads/boletin/boletin_202045.pdf]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Situation Room". [http://www.dge.gob.pe/salasituacional/]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2017. "Directiva Administrativa No. 227-MINSa/2017/OGTI". [ftp://ftp2.minsa.gob.pe/normaslegales/2017/RM_N%C2%BA_074-2017-MINSa.PDF]. Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "Healthcare facilities must safeguard confidentiality". [https://www.gob.pe/institucion/susalud/noticias/315436-establecimientos-de-salud-deben-guardar-confidencialidad-y-reserva-de-informacion-medica-y-acceso-a-la-historia-clinica-de-sus-pacientes]. Accessed 10 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: 1

In Peru, there is legislation and regulations that safeguards the confidentiality of identifiable health information for individuals and includes mention of protections from cyber attacks. The Ministry of Health (MINSa) issued Administrative Directive No. 227-MINSa/2017/OGTI in 2017 to safeguard individuals' health information. The directive deals with overall information security at MINSa, and specifically mentions the responsibility to protect confidential patient data via

information security practices (Section 6.1.3). [1] In addition, Law No. 30024, which established Peru's electronic health records system requires the confidentiality of patient data be protected via an information security system that prevents illicit or illegitimate access. [2]

[1] Ministry of Health (Ministerio de Salud). 2017. "Directiva Administrativa No. 227-MINSA/2017/OGTI".

[ftp://ftp2.minsa.gob.pe/normaslegales/2017/RM_N%C2%BA_074-2017-MINSA.PDF]. Accessed 10 December 2020.

[2] President of the Republic (Presidente de la Republica). 2013. "Ley No. 30024".

[http://www2.congreso.gob.pe/sicr/cendocbib/con5_uibd.nsf/422AB813588C4603052585D6006250F0/\$FILE/30024.pdf]. Accessed 10 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

In Peru, the government has made commitments via public statements, legislation and/or a cooperative agreement to share surveillance data during a public health emergency with other countries in the region, which apply to more than one disease. In July 2013, Peru participated in a meeting of the Andean Health Organization (ORASCONHU), which issued the Guayaquil Declaration and set a priority to establish a regional information, monitoring and evaluation system. [1] Also in 2013, ORASCONHU issued the Andean Plan for Risk Management in the Health Sector 2013-2017. Action 3.1.4 commits Peru to participate in the creation of systems to share information among Andean countries in the event of a public health emergency. [2] In 2004, the Ministry of Health (MINSA) published the Manual for Implementation of Epidemiological Surveillance during Disasters. The manual specifically mentions sharing surveillance information with other countries. The manual defines 'disasters' to include health emergencies (epidemics) as well as natural disasters. [3] In 2020, MINSA issued the country's national COVID-19 response plan, which includes an activity to coordinate epidemiological surveillance actions with the Executive Directorate of International Health which liaises with other countries and international organizations regarding surveillance data and other topics. [4]

[1] Andean Network of Institutes of Health (Red Andina de Institutos de Salud). 2013. "ACTUALIZACIÓN DEL PLAN OPERATIVO DE LA RED ANDINA DE INSTITUTOS DE SALUD (RAIS) Y DEFINICIÓN DE NUEVAS ACTIVIDADES".

[https://www.orasconhu.org/sites/default/files/files/ActaGuayaquil%20RAIS%2016%20jul2013.pdf]. Accessed 10 December 2020.

[2] Andean Health Organization (Organismo Andino de Salud – Convenio Hipólito Unánue). 2013. "PLAN ANDINO PARA LA GESTION DE RIESGOS DE DESASTRES EN EL SECTOR SALUD 2013 – 2017".

[http://www.orasconhu.org/sites/default/files/files/Plan%20de%20accion%20-%20plan%20andino%20de%20desastres%202013.pdf]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2004. "MANUAL PARA LA IMPLEMENTACION DE LA VIGILANCIA EPIDEMIOLOGICA EN DESASTRES". [http://bvs.minsa.gob.pe/local/OGE/243_OGE126.pdf]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2017. "Ministerial Resolution No. 039-2020/MINSA".

[https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF]. Accessed 10 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: 1

In Peru, there is public evidence that the national government supports sub-national systems (e.g. training, metrics standardization and/or financial resources) to conduct contact tracing in the event of a public health emergency, but only in response to active public health emergencies. The Ministry of Health's (MINSA) response plans for Ebola and COVID-19 describe efforts related to contact tracing, but there is limited evidence of a support structure to enable contact tracing efforts at the sub-national level. [1, 2] The 2014-2015 Ebola response plan, Activity 6.2.5, tasks the government with carrying out contact tracing. [1] In addition, in 2014 MINSA published the "Interim Protocol for Contact Tracing for Cases of Ebola Virus Disease", which is aimed at regional and local health authorities across the country and provides some metrics and standardization for defining contacts and actions to take for high- and low-risk contacts. [3] The protocol also provides a flow chart of the contact tracing process. [3] In 2020, MINSA's information regarding COVID-19 defined contacts and provided steps for local and regional healthcare authorities to take to trace contacts of confirmed and suspected cases. [2, 4, 8] In addition, some local public health workers have received online training in contact tracing, although this does not appear to be part of a broader training program in the country. [5] The websites of the Ministry of Health (MINSA) and the National Institute of Health (INS) (including the national laboratory network) do not contain additional public information regarding 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. [6, 7]

[1] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus". [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Epidemiological Alert 10". [<https://www.dge.gob.pe/portal/docs/alertas/2020/AE010.pdf>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Interim Protocol for Contact Tracing for Cases of Ebola Virus Disease". [<http://www.dge.gob.pe/portal/docs/tools/ebola/ebola21.pdf>]. Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. "Outbreak of new coronavirus". [<https://www.dge.gob.pe/portal/docs/tools/coronavirus/coronavirus060320.pdf>]. Accessed 10 December 2020.

[5] Municipality of San Borja. 2020. "Healthcare personnel in San Borja trained for contact tracing". [<http://www.munisanborja.gob.pe/2020/09/03/personal-de-salud-de-san-borja-se-capacito-para-el-seguimiento-a-contactos-de-pacientes-con-covid-19/>]. Accessed 10 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[7] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

[8] Ministry of Health (Ministerio de Salud). 2020. "Health Directive No 122-MINSA/2020/CDC". [<https://cdn.www.gob.pe/uploads/document/file/1422276/RM%20N%C2%B0905-2020-MINSA%20DIRECTIVA%20SANITARIA%20122.pdf.pdf>]. Accessed 25 April 2021.

2.5.1b

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

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

Current Year Score: 0

In Peru, there is insufficient public evidence that the government 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 2020, after declaring stay-at-home orders, the government provided economic support to poor and extremely poor families in March, and in May provided a second support payment to 75% of families in the country. [1, 2, 3] However, these payments were not targeted at individuals that were recommended to isolate, and instead were targeted at socioeconomic groups to mitigate the effects of the economic shutdown. For many families, the support was insufficient, and experts noted that Peru's lockdown was ineffective as a result. [4] In terms of medical support services, rapid response teams have visited different sections of the capital, Lima, to provide treatment and testing but these teams have not reached all regions of the country. [5] The websites of the Ministry of Health (MINSA) and the National Institute of Health (INS) (including the national laboratory network) do not contain additional public information regarding wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended. [6, 7]

[1] Gestion. 2020. "These are the 28 economic measures to face the coronavirus crisis in Peru".

[<https://gestion.pe/economia/estas-son-las-28-medidas-economicas-para-enfrentar-la-crisis-del-coronavirus-en-peru-noticia/>]. Accessed 10 December 2020.

[2] MDZ Diario de Mendoza. 2020. "Peru expands quarantine to May 10th and provides economic support".

[<https://www.mdzol.com/mundo/2020/4/23/peru-amplia-la-cuarentena-al-10-de-mayo-da-ayuda-economica-74766.html>]. Accessed 10 December 2020.

[3] Government of Peru. 2020. "Coronavirus economic support". [<https://www.gob.pe/8895-coronavirus-apoyos-economicos-del-estado-por-el-aislamiento-social-obligatorio>]. Accessed 10 December 2020.

[4] Gestion. 2020. "Peru and a dramatic decision to open the economy". [<https://gestion.pe/peru/peru-y-una-decision-dramatica-abrir-la-economia-en-pleno-apogeo-del-virus-noticia/>]. Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "Rapid response teams diagnose and treat COVID-19".

[<https://www.gob.pe/institucion/minsa/noticias/168013-equipos-de-respuesta-rapida-diagnostican-y-tratan-covid-19-a-familias-de-siete-distritos-de-lima-este>]. Accessed 10 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[7] National Institute of Health (Instituto Nacional de Salud). 2020. "INS". [<https://web.ins.gob.pe/>]. Accessed 8 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

In Peru, there is no public evidence that the government 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. The Ministry of Health (MINSa) publishes a daily epidemiological bulletin with de-identified health surveillance data on COVID-19 cases, testing rates, deaths, and recoveries, among other information. [1, 2] Confirmed cases are disaggregated by region, but individual case information is not provided, nor is if cases are contacts of previous cases. [2] MINSa also provides updated information on case numbers, hospitalizations, availability of beds, deaths via an interactive online dashboard, but it does not provide de-identified data on contact tracing efforts either. [3]

[1] Ministry of Health (Ministerio de Salud). 2020. "COVID-19 Situation in Peru". [https://www.dge.gob.pe/portalnuevo/covid-19/covid-cajas/situacion-del-covid-19-en-el-peru/]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Coronavirus Report 8 December 2020". [https://www.dge.gob.pe/portal/docs/tools/coronavirus/coronavirus081220.pdf]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Situation Room COVID-19 Peru". [https://covid19.minsa.gob.pe/sala_situacional.asp]. Accessed 10 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: 1

In Peru, there are joint plans 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, but only in response to active public health emergencies. Disease-specific plans in Peru outline the responsibilities of border control and public health authorities during public health emergencies. For example, the 2015 "Emergency Health Protocols for Epidemiological Surveillance of the potential introduction of Ebola virus in Peru", Section 4.2, provides specific procedures for border control and public health authorities to follow, including establishing where travelers are arriving from, nationality, and other characteristics used to screen for suspected cases. The protocols provide a flow chart describing the responsibilities of each set of authorities. [1] In 2020, the government also issued protocols for screening arriving travelers for COVID-19 and establishing procedures to follow up on self-isolation and contact tracing. For example, all travelers are required to fill out an online health survey 72 hours prior to departure and commit to a quarantine period. [2, 3]

[1] Ministry of Health (Ministerio de Salud). 2015. "Emergency Health Protocols for Epidemiological Surveillance of the potential introduction of Ebola virus in Peru". [http://bvs.minsa.gob.pe/local/MINSA/3295.pdf]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 810-2020/MINSA". [https://cdn.www.gob.pe/uploads/document/file/1349260/Resoluci%C3%B3n%20Ministerial%20N%C2%B0%20810-2020-MINSA.PDF]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 627-2020/MINSA". [https://cdn.www.gob.pe/uploads/document/file/1237658/RESOLUCIO%CC%81N_MINISTERIAL_N_627-2020-MINSA.PDF]. Accessed 10 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: 1

In Peru, applied epidemiology training (such as FETP) is available in the country; there is no public evidence of the government sending citizens to other countries for training. According to Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET), Peru's FETP was founded in 1989, is a member of TEPHINET, and has graduated 149 individuals. The program offers the "frontline" training level. [1] The program's 6 cohorts have been supported by the United States Agency for International Development and the Centers for Disease Control and Prevention. [2, 3] In addition, TEPHINET provides shorter trainings on field epidemiology in Peru. The organization has provided 10 training courses in eight regions of the country and around 400 healthcare professionals have participated. [4] The website of the Ministry of Health does not contain additional publicly available information regarding resources provided by the government to send citizens to another country to participate in applied epidemiology training programs. [5]

[1] Training Programs in Epidemiology and Public Health Interventions Network. 2020. "Peru Field Epidemiology Training Program". [<https://www.tephinet.org/training-programs/peru-field-epidemiology-training-program>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Field epidemiology training program". [<https://www.dge.gob.pe/portalnuevo/servicios/programa-de-formacion-en-epidemiologia-de-campo/>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). "Graduates". [<http://www.dge.gob.pe/portal/docs/tools/prec/egresados.pdf>]. Accessed 10 December 2020.

[4] Centro Nacional de Epidemiología, Prevención y Control de Enfermedades. 2018. "CON ÉXITO SE REALIZA CAPACITACION EN EPIDEMIOLOGIA DE CAMPO A PERSONAL DE SALUD DE LA REGION ICA".

[http://www.dge.gob.pe/portal/docs/notas_prensa/2018/nota_022018.pdf]. Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 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

In Peru, there is no public evidence that the available field epidemiology training programs are explicitly inclusive of animal health professionals or that there is a specific animal health field epidemiology training program offered (such as FETPV). TEPHINET’s information on the Peru Field Epidemiology Training Program does not cover animal health professionals in Peru. [1, 2] The list of graduates from the six completed training cohorts includes the occupation of each individual; none of the 149 graduates have worked in the animal health sector according to the list. [3] One university in the country offers a master’s degree in Veterinary Epidemiology and Public Health, but it is not clear if it is field-based. [4] The website of the Ministry of Health does not contain additional publicly available information regarding field epidemiology training programs for animal health professionals. [5]

[1] Training Programs in Epidemiology and Public Health Interventions Network. 2020. “Peru Field Epidemiology Training Program”. [<https://www.tephinet.org/training-programs/peru-field-epidemiology-training-program>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. “Field epidemiology training program”. [<https://www.dge.gob.pe/portalnuevo/servicios/programa-de-formacion-en-epidemiologia-de-campo/>]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). “Graduates”. [<http://www.dge.gob.pe/portal/docs/tools/prec/egresados.pdf>]. Accessed 10 December 2020.

[4] Cayetano Heredia Post-Graduate School. 2016. “Maestría en Epidemiología y Salud Pública en Veterinaria”. [<http://www.posgradoupch.pe/programa/maestria-epidemiologia-salud-publica-veterinaria/>]. Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. “MINSA”. [<https://www.gob.pe/minsa/>]. Accessed 9 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

In Peru, there is no public evidence that the government has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The government of Peru has issued multiple emergency response plans for specific diseases via the Ministry of Health (MINSa). In 2014, MINSa issued its National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza. The plan includes a budget for each component, expected results and activities. [1] The National Institute of Civil Defense (INDECI) also issued a National Plan for Prevention and Response to Influenza in 2010. [2] In addition, the Ministry of Health's has published online separate national response plans for Zika (2016) and Ebola (2015). [3, 4] The Zika plan includes information on the situation in 2016, risk factors for transmission, the population at risk, intervention strategies and a matrix of objectives, activities, goals and budget. [3] The Ebola plan includes intervention strategies, social determinants of Ebola transmission, timeline and responsibilities and a proposed budget. [4] INDECI's National Emergency Operations Plan was issued in 2007, and outlines responsibilities for ministries, including MINSa, in the event of a disaster, but does not specifically include epidemics and pandemics. [5] In 2020, MINSa issued the National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV, which includes a budget for each component, expected results and activities. [6] The websites of MINSa and INDECI do not contain additional public information regarding an overarching national public health emergency response plan. [7, 8]

[1] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015".

[<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2010. "National Plan for Prevention and Response to Influenza". [<http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1438/doc1438.pdf>]. Accessed 11 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness – Peru, 2016". [<ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF>].

Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus". [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.

[5] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2007. "National Emergency Operations Plan". [<http://sinpad.indeci.gob.pe/UploadPortalSINPAD/PNOE.pdf>]. Accessed 11 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. "National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV". [<https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF>]. Accessed 11 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2020. "MINSa". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 11 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

In Peru, there is no public evidence that the government has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The government of Peru has issued multiple emergency response plans for specific diseases via the Ministry of Health (MINSa) and the National Institute of Civil Defense (INDECI). [1, 2, 3, 4, 5, 6] The websites of MINSa and INDECI do not contain additional public information regarding an overarching national public health emergency response plan. [7, 8]

- [1] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015". [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.
- [2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2010. "National Plan for Prevention and Response to Influenza". [<http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1438/doc1438.pdf>]. Accessed 11 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness – Peru, 2016". [<ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF>]. Accessed 10 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus". [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.
- [5] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2007. "National Emergency Operations Plan". [<http://sinpad.indeci.gob.pe/UploadPortalSINPAD/PNOE.pdf>]. Accessed 11 December 2020.
- [6] Ministry of Health (Ministerio de Salud). 2020. "National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV". [<https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF>]. Accessed 11 December 2020.
- [7] Ministry of Health (Ministerio de Salud). 2020. "MINSa". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 11 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

In Peru, there is no public evidence that the government has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The government of Peru has issued multiple emergency response plans for specific diseases via the Ministry of Health (MINSa) and the National Institute of Civil Defense (INDECI). [1, 2, 3, 4, 5, 6] The websites of MINSa and INDECI do not contain additional public information regarding an overarching national public health emergency response plan that includes considerations for pediatric and/or other vulnerable populations. [7, 8]

- [1] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015". [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.
- [2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2010. "National Plan for Prevention and Response to Influenza". [<http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1438/doc1438.pdf>]. Accessed 11 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness – Peru, 2016". [<ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF>]. Accessed 10 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction

of the Ebola Virus”. [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.

[5] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2007. “National Emergency Operations Plan”. [<http://sinpad.indeci.gob.pe/UploadPortalSINPAD/PNOE.pdf>]. Accessed 11 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. “National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV”. [<https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF>]. Accessed 11 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2020. “MINSA”. [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. “INDECI”. [<https://www.gob.pe/indeci>]. Accessed 11 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: 1

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: 1

In Peru, there is some public evidence that the government has specific mechanisms for engaging with the private sector to assist with outbreak emergency preparedness and response. Peru’s disease-specific public health emergency response plans discuss undertaking activities with the private sector for prevention and response. For example, the Ministry of Health’s (MINSA) 2014 National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza tasks public health officials with visiting private pharmacies, healthcare providers and media to share key messages. The plan also considers reaching out to transport companies and shopping centers to share important messages about prevention. [1] MINSA’s previous influenza response plan was published in 2009 and included detailed actions to train individuals from the private sector and collaborate with companies to share flu prevention information. [2] In addition, MINSA has published separate national response plans for Zika (2016) and Ebola (2015). [3, 4] The national response plan for Zika states that private healthcare providers are responsible for implementing aspects of the plan that correspond to them. [3] The national response plan for Ebola states that the General Directorate of Health Promotion will coordinate activities with other government ministries as well as the private sector. In addition, the plan calls for MINSA to coordinate its actions with private healthcare providers. [4] The National Institute of Civil Defense’s (INDECI) 2010 National Plan for Prevention and Response to Influenza contemplates private sector participation in sharing key messages regarding prevention via business associations, unions, and other private-sector organizations. [5] MINSA’s 2021-2023 Multi-Year Institutional Operations Plan (POI), strategic action 4.1, states that the ministry will seek inter-sectorial and civil society connections to strengthen the implementation of national policies and plans for emergencies and conflicts. [6]

MINSA's 2020 National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV states that it applies to all healthcare facilities in the public and private sectors. The plan also states that MINSA will supervise the application of biosafety protocols in private facilities and educate journalists regarding the virus. [7]

- [1] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015". [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.
- [2] Ministry of Health (Ministerio de Salud). 2009. "Plan Nacional de Respuesta Frente a la Pandemia de Influenza". [<http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1436/doc1436.pdf>]. Accessed 10 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness – Peru, 2016". [<ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF>]. Accessed 10 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus". [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.
- [5] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2010. "National Plan for Prevention and Response to Influenza". [<http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1438/doc1438.pdf>]. Accessed 11 December 2020.
- [6] Ministry of Health (Ministerio de Salud). 2020. "2021-2023 Multi-Year Institutional Operations Plan (POI)". [<https://cdn.www.gob.pe/uploads/document/file/1204064/plan-operativo-institucional-poi-multianual-2021-2023-del-ministerio-de-salud.pdf>]. Accessed 9 December 2020.
- [7] Ministry of Health (Ministerio de Salud). 2020. "National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV". [<https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF>]. Accessed 11 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: 2

In Peru, there is some public evidence that the government has guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for more than one disease. The National Institute of Civil Defense's (INDECI) 2010 National Plan for Prevention and Response to Influenza categorizes actions using four phases: Prevention, Preparation, Mitigation and Response. Each phase contains specific NPIs to be implemented. For example, NPIs during the Prevention phase include biosafety measures at ports of entry and restricting travel; implementing strict biosafety measures at institutions and reducing activities with human contact during the Mitigation phase; and reducing opportunities for direct contact between persons and reinforcing risk communications strategies during the Response phase. [1] During the COVID-19 pandemic state of emergency, the Peruvian government has recommended the implementation of NPIs such as frequent hand-washing, physical distancing, curfew, face coverings, and keeping surfaces disinfected, among others. Publicly available documents do not provide criteria for when to implement these NPIs, except to state that they are recommended and/or compulsory (depending on the specific NPI) during the state of emergency. [2, 3]

- [1] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2010. "National Plan for Prevention and Response to Influenza". [<http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1438/doc1438.pdf>]. Accessed 11 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. “Learn what coronavirus is”.

[<https://www.gob.pe/institucion/minsa/campa%C3%B1as/699-conoce-que-es-el-coronavirus-covid-19>]. Accessed 11 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. “National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV”. [<https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF>]. Accessed 11 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

In Peru, there is public evidence that the country has activated its national emergency response plan for an infectious disease outbreak in the past year; there is no public evidence that the country has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. On March 11, 2020, the Ministry of Health (MINSA) issued Supreme Decree No. 008-2020-SA, which declared a national Health Emergency for COVID-19 and instructed the ministry to issue an action plan to activate the public health emergency response within 72 hours (Article 1). [1] The most recent public evidence regarding an exercise on MINSA’s website is from a national earthquake and tsunami exercise in which MINSA participated in 2018. [2] The most recent public evidence regarding an exercise in the agricultural sector is for a local avian influenza outbreak simulation carried out in 2018. [3] The websites of MINSA, the WHO Simulation Exercise page, National Institute of Civil Defense, WHO country page for Peru, Pan American Health Organization country office page for Peru, Ministry of Agricultural Development and Irrigation, and National Agricultural Health Service do not contain additional public information regarding a national-level biological threat-focused exercise (either with WHO or separately) in the past year. [4, 5, 6, 7, 8, 9, 10]

[1] Ministry of Health (Ministerio de Salud). 2020. “Supreme Decree No. 008-2020-SA”.

[https://cdn.www.gob.pe/uploads/document/file/605928/DS_008-2020-SA.PDF]. Accessed 12 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2018. “DIGERD trains staff prior to drill”.

[<https://www.minsa.gob.pe/digerd/index.asp?op=61¬=227>]. Accessed 12 December 2020.

[3] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2018. “Avian influenza drill creates expectations in Lurin”. [<https://www.senasa.gob.pe/senasacontigo/simulacro-de-influenza-aviar-genera-expectativa-en-lurin/>]. Accessed 12 December 2020.

[4] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. “MIDAGRI”.

[<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[5] Pan American Health Organization. 2020. “Peru”. [<https://www.paho.org/es/peru>]. Accessed 10 December 2020.

[6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. “SENASA”.

[<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 11 December 2020.

[9] World Health Organization. 2020. "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 13 November 2020.

[10] World Health Organization. 2020. "Peru". [<https://www.who.int/countries/per/>]. Accessed 12 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

In Peru, there is no publicly available 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 of a biological-threat focused exercise) and developed a plan to improve response capabilities. The WHO After Action Review webpage and the Health Security Calendars for 2019 and 2020 do not show any events in Peru. [1, 2, 3] The websites of the Ministry of Health, National Institute of Civil Defense, WHO country page for Peru, Pan American Health Organization country office page for Peru, Ministry of Agricultural Development and Irrigation, and National Agricultural Health Service do not contain additional public information regarding an after-action review in the past year. [4, 5, 6, 7, 8, 9]

[1] World Health Organization. 2018. "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 12 December 2020.

[2] World Health Organization. 2019. "Health Security Calendar". [https://extranet.who.int/sph/calendar/2019?1&type=All&field_region_tid=203&country_tid=All]. Accessed 12 December 2020.

[3] World Health Organization. 2020. "Health Security Calendar". [https://extranet.who.int/sph/calendar/2020?1&type=All&field_region_tid=203&country_tid=All]. Accessed 12 December 2020.

[4] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[5] Pan American Health Organization. 2020. "Peru". [<https://www.paho.org/es/peru>]. Accessed 10 December 2020.

[6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 11 December 2020.

[9] World Health Organization. 2020. "Peru". [<https://www.who.int/countries/per/>]. Accessed 12 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

In Peru, 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. The most recent public evidence regarding an exercise on the Ministry of Health's (MINSA) website is from a national earthquake and tsunami exercise in which MINSA participated in 2018. [1] MINSA's website does not contain any public evidence regarding a recent national-level biological threat-focused exercise. [2] The most recent public evidence regarding an exercise in the agricultural sector is for a local avian influenza outbreak simulation carried out in 2018. This exercise was not national-level. [3] The websites of MINSA, the WHO Health Security Calendar for 2019 and 2020, National Institute of Civil Defense, WHO country page for Peru, WHO Simulation Exercise page, Pan American Health Organization country office page for Peru, Ministry of Agricultural Development and Irrigation, and National Agricultural Health Service do not contain additional public information regarding a national-level biological threat-focused exercise that has included private sector representatives in the past year. [4, 5, 6, 7, 8, 9, 10, 11, 12]

[1] Ministry of Health (Ministerio de Salud). 2018. "DIGERD trains staff prior to drill".

[<https://www.minsa.gob.pe/digerd/index.asp?op=61¬=227>]. Accessed 12 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[3] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2018. "Avian influenza drill creates expectations in Lurin". [<https://www.senasa.gob.pe/senasacontigo/simulacro-de-influenza-aviar-genera-expectativa-en-lurin/>]. Accessed 12 December 2020.

[4] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI". [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[5] Pan American Health Organization. 2020. "Peru". [<https://www.paho.org/es/peru>]. Accessed 10 December 2020.

[6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "SENASA". [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indec>]. Accessed 11 December 2020.

[9] World Health Organization. 2020. "Peru". [<https://www.who.int/countries/per/>]. Accessed 12 December 2020.

[10] World Health Organization. 2019. "Health Security Calendar".

[https://extranet.who.int/sph/calendar/2019?1&type=All&field_region_tid=203&country_tid=All]. Accessed 12 December 2020.

[11] World Health Organization. 2020. "Health Security Calendar".

[https://extranet.who.int/sph/calendar/2020?1&type=All&field_region_tid=203&country_tid=All]. Accessed 12 December 2020.

[12] World Health Organization. 2020. "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 29 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

In Peru, the government has an Emergency Operations Center in place. The Ministry of Health (MINSA) operates the Health Emergency Operations Center (“COE Salud”). [1] COE Salud is managed by MINSA’s General Directorate of Disaster Risk Management and National Defense for Health (DIGERD). [1] COE Salud’s 2018 Organization and Operations Manual states that the center and the National Institute of Civil Defense (INDECI) coordinate actions for the health sector response to emergencies. [1] Additionally, the COE Salud leads local, regional and cross-sector groups to detect and monitor emergencies. [1] INDECI operates the National Emergency Operations Center (COEN), which coordinates all aspects of emergency response and interfaces with the COE Salud. [2] Peru’s 2018 International Health Regulations (IHR) State Party self-assessment annual report scored the country at 80% for indicator “C.8.2 Management of health emergency response operation” and 60% for indicator “C.6.2 Mechanism for event management (verification, risk assessment analysis, investigation)”. [3]

[1] Ministry of Health (Ministerio de Salud). 2018. “Organización y Funcionamiento del Centro de Operaciones de Emergencias y de los Espacios de Monitoreo de Emergencias y Desastres del Sector Salud”.

[<http://bvs.minsa.gob.pe/local/MINSA/4451.pdf>]. Accessed 10 December 2020.

[2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2004. “COEN Operations Manual”.

[<http://sinpad.indeci.gob.pe/UploadPortalSINPAD/MANUAL%20DE%20FUNCIONAMIENTO%20-%20COEN.pdf>]. Accessed 12 December 2020.

[3] World Health Organization. 2018. “Peru - IHR State Party self-assessment annual reports”.

[<https://extranet.who.int/sph/country/193>]. Accessed 9 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

In Peru, there is insufficient public evidence that either the Health Emergency Operations Center (“COE Salud”) or the National Emergency Operations Center (COEN) is required to conduct a drill for a public health emergency (PHE) scenario at least once per year or that either conducts PHE drill once per year. The most recent public evidence regarding an exercise on the Ministry of Health’s (MINSA) website is from a national earthquake and tsunami exercise in which MINSA participated in 2018. [1] According to Peru’s 2015 GHS Pilot Scorecard, the country carries out a national earthquake simulation annually, which includes tabletop exercises, but Peru does not have regular PHE tabletop exercises. The report states that Peru planned to add such exercises, but there is no public evidence that this has occurred. [2] Article 9 of Supreme Decree 048-2011-PCM requires the national disaster risk management system to perform drills and exercises but does not specify how often. [3] The websites of MINSA and the National Institute of Civil Defense (INDECI), as well as their annual reports, do not

contain additional public information regarding an annual drill for a PHE. [4, 5]

- [1] Ministry of Health (Ministerio de Salud). 2018. "DIGERD trains staff prior to drill". [<https://www.minsa.gob.pe/digerd/index.asp?op=61¬=227>]. Accessed 12 December 2020.
- [2] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [3] President of the Republic (Presidente de la Republica). 2011. "DECRETO SUPREMO N° 048-2011-PCM". [<http://www.minam.gob.pe/prevencion/wp-content/uploads/sites/89/2014/10/2.-DS-048-2011-Reglamento-Ley-29664.pdf>].
- [4] Ministry of Health (Ministerio de Salud). 2020. "MINSAs". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [5] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 11 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

In Peru, there is insufficient public evidence that either the Health Emergency Operations Center ("COE Salud") or the National Emergency Operations Center (COEN) 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. The websites of the Ministry of Health (MINSAs) and the National Institute of Civil Defense (INDECI) do not contain additional public information regarding a coordinated emergency response or emergency response exercise for a public health emergency (PHE) or scenario. [1, 2] However, MINSAs does monitor the timeliness with which health administrative regions report "events" to the COE Salud. [3] MINSAs's 2021-2023 Multi-Year Institutional Operations Plan (POI), strategic indicator AEI.08.05, establishes a goal for events (which include traffic accidents, intense rains, social conflicts, common crime, storms, and "other") to be reported to the COE Salud within 2 hours. [4]

- [1] Ministry of Health (Ministerio de Salud). 2020. "MINSAs". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 11 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2020. "COE Salud Crisis Room". [<https://www.minsa.gob.pe/digerd/images/gestor/coe/1548.PDF>]. Accessed 12 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2020. "2021-2023 Multi-Year Institutional Operations Plan (POI)". [<https://cdn.www.gob.pe/uploads/document/file/1204064/plan-operativo-institucional-poi-multianual-2021-2023-del-ministerio-de-salud.pdf>]. Accessed 9 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

In Peru, there is no publicly available evidence that the country's public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack), nor is there public evidence of 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. The Ministry of Health (MINSa) and the National Police signed a collaboration agreement in 2005 to strengthen the police force's internal healthcare capacity and to coordinate interventions in disaster situations, but the agreement does not specifically mention deliberate biological events. [1] MINSa also has a 2016 operational continuity plan, but it does not mention collaboration with national security authorities. [2] Supreme Decree No. 027-2017-SA created the Multisectoral Commission for Safe Hospitals in the Face of Disasters, but the decree does not mention deliberate biological events. [3] MINSa and the Ministry of Defense signed a collaboration agreement in 2006, but it does not mention bioterrorism or joint emergency response. [4] In 2016, regional MINSa authorities approved an interim Contingency Plan for a public health emergency at Peru's main international airport. The plan lists bioterrorism among possible risks to the airport, but the response protocols described in the plan focus on detection of a pathogen of international concern among passengers arriving at the airport. [5] According to the Global Health Security Agenda (GHSa) pilot assessment carried out in 2015, Peru lacks a bioterrorism response plan. [6] The websites of the Ministry of Health (MINSa) and the National Institute of Civil Defense (INDECI) do not contain additional public information regarding a bioterrorism exercise or agreements between the public health and security authorities to respond to a potential deliberate biological event. [7, 8]

[1] Ministry of Health (Ministerio de Salud). 2005. "Convenio No. 021-2005-MINSa".

[ftp://ftp2.minsa.gob.pe/descargas/Transparencia/01InformacionInst/archivolegaldigital/Convenio2005/CONV_021_2005.PDF]. Accessed 13 December 2020.

[2] Ministerio de Salud. 2016. "Plan de Continuidad Operacional del Ministerio de Salud".

[http://bvs.minsa.gob.pe/local/MINSa/4180.pdf]. Accessed 13 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Supreme Decree No. 027-2017-SA".

[https://cdn.www.gob.pe/uploads/document/file/188999/188490_DS_027-2017-SA.PDF20180823-24725-1lo2cge.PDF]. Accessed 13 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. "Convenio No. 052-2006-MINSa".

[ftp://ftp2.minsa.gob.pe/descargas/Transparencia/01InformacionInst/archivolegaldigital/Convenio2006/Convenio052-2006.pdf]. Accessed 13 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "Directorial Resolution No. 509-2016-GRC-DIRESA-DG".

[https://www.diresacallao.gob.pe/wdiresa/documentos/baselegal/FILE0002112016.pdf]. Accessed 13 December 2020.

- [6] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.
- [7] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 13 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: 1

In Peru, the Ministry of Health's (MINSA) risk communications plans outline how messages will reach populations and sectors with different communications needs. MINSA's Risk Communication and Crisis Management Guide outlines processes to identify different target populations, understand their needs and seek communication methods that will reach them appropriately. The guide describes a "preparation stage" before a crisis during which authorities should identify the populations they want to reach and determine their socioeconomic characteristics based on the following aspects: "cultural, holistic, geographic accessibility, isolated and confined populations, immigrants, specific age groups, education level, etc.". In addition, the guide calls on health authorities to constantly update the types of channels and media they use to reach the public as well as establishing a channel for feedback from the public. [1] MINSA's 2020 Publicity Strategic Plan, which contains the risk communications strategy for COVID-19, divides the target audience into primary, secondary, and strategic allies, which are also divided based on the phase of transmission of the disease in the country (imported cases and local transmission). The plan includes traditional media as well as digital channels to reach the target populations because of their reach into low-income households, cost effectiveness, and "high presence in households in Lima and the majority of departments in the country", noting that digital media allow for messages to be targeted based on age, interests, and behavior profiles. [2]

[1] Ministry of Health (Ministerio de Salud). 2014. "GUÍA PARA LA COMUNICACIÓN DE RIESGOS Y GESTIÓN DE CRISIS". [https://www.saludarequipa.gob.pe/redislay/epidemiologia_islay/ebola_guia_riesgos.pdf]. Accessed 13 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2016. "Publicity Strategic Plan". [<https://cdn.www.gob.pe/uploads/document/file/1272358/Plan.PDF>]. Accessed 13 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: 1

In Peru, the Ministry of Health (MINSa) has several documents detailing a risk communication plan that is specifically intended for use during a public health emergency. In 2006, MINSa issued the Manual for Managing Communication during Crisis Situations, which seeks to "help communicators, spokespersons, and MINSa directors act as practically as possible", to "become a practical guide to be applied with the resources and tools necessary to efficiently respond to a crisis", and to "motivate coordination actions among various dependencies in the sector in order to develop an effective communication system that facilitates appropriate management of crisis situations and the adoption of preventive attitudes". [1] In 2014, MINSa issued the Risk Communication and Crisis Management Guide with processes to identify different target populations, understand their needs, and seek communication methods that will reach them appropriately. [2] In addition, MINSa's disease-specific response plans contain risk communications sections for sharing information with the public in a clear and confident manner during emergencies related to COVID-19, Zika, and Ebola outbreaks. [3, 4, 5]

[1] Ministry of Health (Ministerio de Salud). 2006. "Manual for Managing Communication during Crisis Situations".

[ftp://ftp2.minsa.gob.pe/docconsulta/documentos/ogc/GUIAINTERVENCIONENCRISIS/MANUALCRISISJULIO2006OK.pdf]. Accessed 13 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2014. "GUÍA PARA LA COMUNICACIÓN DE RIESGOS Y GESTIÓN DE CRISIS".

[https://www.saludarequipa.gob.pe/redislay/epidemiologia_islay/ebola_guia_riesgos.pdf]. Accessed 13 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2016. "Publicity Strategy Plan".

[https://cdn.www.gob.pe/uploads/document/file/1272358/Plan.PDF]. Accessed 13 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness - Peru, 2016". [ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF].

Accessed 10 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus". [http://bvs.minsa.gob.pe/local/MINSA/3294.pdf]. Accessed 10 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: 1

In Peru, there is public evidence that the Ministry of Health's (MINSa) risk communications plans designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency (PHE). MINSa's 2006 Manual for Managing Communication during Crisis Situations states that during a PHE the Crisis Committee should designate one or more spokespersons for each sector. [1] MINSa's 2014 Risk Communication and Crisis Management Guide states that during a PHE, a risk communication and crisis team should be created which will identify and train "official spokespersons". [2] MINSa's 2014 Ebola response plan states that spokesperson responsibilities will fall to the ministry's General Communications Office and General Directorate of Health Promotion but does not name specific positions within those offices. [3] MINSa's 2020 COVID-19 risk communications plan states that spokesperson responsibilities will fall to the Ministry of Health but does not name specific positions. [4] The websites of the Ministry of Health (MINSa) and the National Institute of Civil Defense (INDECI) do not contain additional public information regarding a specific position within the government designated to serve as the primary spokesperson to the public during a PHE. [5, 6]

- [1] Ministry of Health (Ministerio de Salud). 2006. “Manual for Managing Communication during Crisis Situations”. [<ftp://ftp2.minsa.gob.pe/docconsulta/documentos/ogc/GUIAINTERVENCIONENCRISIS/MANUALCRISISJULIO2006OK.pdf>]. Accessed 13 December 2020.
- [2] Ministry of Health (Ministerio de Salud). 2014. “GUÍA PARA LA COMUNICACIÓN DE RIESGOS Y GESTIÓN DE CRISIS”. [https://www.saludarequipa.gob.pe/redislay/epidemiologia_islay/ebola_guia_riesgos.pdf]. Accessed 13 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2015. “National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus”. [<http://bvs.minsa.gob.pe/local/MINSA/3294.pdf>]. Accessed 10 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2016. “Publicity Strategic Plan”. [<https://cdn.www.gob.pe/uploads/document/file/1272358/Plan.PDF>]. Accessed 13 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2020. “MINSA”. [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [6] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. “INDECI”. [<https://www.gob.pe/indeci>]. Accessed 13 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: 2

In Peru, there is public evidence that during the past year the public health system has actively shared messages via its website and social media platforms to inform the public about ongoing public health concerns and/or dispel rumors, misinformation or disinformation. In terms of information shared on its sites, the Ministry of Health (MINSA) has shared extensive information regarding the development of the COVID-19 pandemic in Peru. MINSA’s website contains a list of more than 35 plans, training sessions, protocols and guides for prevention, control and treatment of COVID-19. [1] MINSA’s website contains specific information for a variety of situations, including restaurants, markets, waste management, and others. [2, 3, 4] Press releases on MINSA’s website also document confirmed cases and development of the pandemic, as well as application of health protocols and health promotion activities to remind the population of safe practices. [5] In terms of frequency, MINSA publishes around 10 press releases each weekday, on topics such as those mentioned above, although not all deal with ongoing public health concerns. [6, 7, 8] In addition, MINSA manages websites with information regarding case counts and the geographic location of cases and clusters in the country for a variety of diseases. [9, 10] In terms of social media platforms, MINSA posts some of the same information that it shares in press releases (mentioned above) on both Facebook and Twitter, while also focusing on specific campaigns. [11, 12] For example, on December 11, 2020 MINSA published 11 posts on Twitter and nine on its Facebook page, with several posts on each page promoting the MINSA’s upcoming annual vaccination campaign for children. [11, 12]

- [1] Ministry of Health (Ministerio de Salud). 2020. “COVID-19”. [<http://www.digesa.minsa.gob.pe/orientacion/COVID-19.asp>]. Accessed 13 December 2020.
- [2] Ministry of Health (Ministerio de Salud). 2020. “Recommendations COVID-19”. [http://www.digesa.minsa.gob.pe/orientacion/Recomendacion_COVID19.asp]. Accessed 13 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2020. “Markets”. [http://www.digesa.minsa.gob.pe/orientacion/Mercados_Abastos.asp]. Accessed 13 December 2020.

- [4] Ministry of Health (Ministerio de Salud). 2020. “Restaurants and services”.
[http://www.digesa.minsa.gob.pe/orientacion/Restaurantes_Servicios.asp]. Accessed 13 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2020. “Search Results MINSA News”.
[[https://www.gob.pe/busquedas?contenido\[\]=noticias&institucion\[\]=minsa&reason=sheet&sheet=1](https://www.gob.pe/busquedas?contenido[]=noticias&institucion[]=minsa&reason=sheet&sheet=1)]. Accessed 13 December 2020.
- [6] Ministry of Health (Ministerio de Salud). 2020. “COVID-19 confirmed cases reach 980,943 in Peru”.
[<https://www.gob.pe/institucion/minsa/noticias/320282-minsa-casos-confirmados-por-coronavirus-covid-19-ascienden-a-980-943-en-el-peru-comunicado-n-351>]. Accessed 13 December 2020.
- [7] Ministry of Health (Ministerio de Salud). 2020. “MINSA checks Emporio de Gamarra”.
[<https://www.gob.pe/institucion/minsa/noticias/320253-minsa-verifica-en-emporio-de-gamarra-que-se-cumplan-protocolos-sanitarios-para-evitar-covid-19>]. Accessed 13 December 2020.
- [8] Ministry of Health (Ministerio de Salud). 2020. “MINSA insists that population not lower its guard against COVID-19 during Christmas and New Year’s”. [<https://www.gob.pe/institucion/minsa/noticias/320213-minsa-insta-a-la-poblacion-a-no-bajar-la-guardia-frente-a-la-covid-19-durante-navidad-y-ano-nuevo>]. Accessed 13 December 2020.
- [9] Ministry of Health (Ministerio de Salud). 2020. “Situation Room COVID-19 Peru”.
[https://covid19.minsa.gob.pe/sala_situacional.asp]. Accessed 10 December 2020.
- [10] Ministry of Health (Ministerio de Salud). 2020. “Situation Room”. [<http://www.dge.gob.pe/salasisituacional/>]. Accessed 10 December 2020.
- [11] Ministry of Health (Ministerio de Salud). 2020. “MINSA Peru Twitter”.
[https://twitter.com/Minsa_Peru?ref_src=twsrc%5Etfw%7Ctwcamp%5Eembeddedtimeline%7Ctwtterm%5Eprofile%3AMinsa_Peru&ref_url=https%3A%2F%2Fwww.gob.pe%2Fminsa%2F]. Accessed 13 December 2020.
- [12] Ministry of Health (Ministerio de Salud). 2020. “MINSA Peru Facebook”. [<https://www.facebook.com/minsaperu/>]. Accessed 13 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

In Peru, there is no public evidence that senior leaders (president or ministers) have shared misinformation or disinformation on infectious diseases in the past two years. National news outlets—El Comercio, Gestion, and RPP—and international news outlets—El Pais, BBC Mundo, and EFE Agency—do not contain evidence regarding misinformation or disinformation on infectious diseases spread by senior leaders in Panama in the past two years. [1, 2, 3, 4, 5, 6]

- [1] El Comercio. 2020. “Search results”.
[<https://elcomercio.pe/buscar/desinformacion/todas/descendiente/?query=desinformacion>]. Accessed 13 December 2020.
- [2] Gestion. 2020. “Search results”. [<https://gestion.pe/buscar/desinformacion/todas/descendiente/?query=desinformacion>]. Accessed 13 December 2020.
- [3] RPP. 2020. “Search results”. [<https://rpp.pe/buscar?q=desinformacion>]. Accessed 13 December 2020.
- [4] El Pais. 2020. “Panama”. [<https://elpais.com/noticias/panama/>]. Accessed 13 December 2020.
- [5] BBC Mundo. 2020. “Panama”. [<https://www.bbc.com/mundo/topics/cdr5617k8xwt>]. Accessed 13 December 2020.
- [6] EFE Agencia. 2020. “Search results”.
[<https://www.efe.com/efe/america/busqueda/50000539?q=panama+desinformacion>]. Accessed 13 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: 59.95

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: 123.76

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: 11.0

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: 15.0

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 0

In Peru, there is public evidence that the government has 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 April 2020, the government instituted a requirement for prior authorization before face masks, gloves and other PPE can be exported. [1, 2] Supreme Decrees No. 013-2020-SA and No. 015-2020-SA formalized the requirement. According to the former, the measure was implemented to “guarantee the internal supply” of items needed to treat the COVID-19 pandemic. [3, 4]

[1] World Trade Organization. 2020. “Trade-related goods measures”.

[https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm]. Accessed 13 December 2020.

[2] Bloomberg Law. 2020. “International Trade Covid-19 Developments”.

[<https://www.bloomberglaw.com/product/health/document/XDL12EUG000000#Peru>]. Accessed 13 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. “Supreme Decree No. 015-2020-SA”.

[https://cdn.www.gob.pe/uploads/document/file/604958/DS_015-2020-SA.pdf]. Accessed 13 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. “Supreme Decree No. 013-2020-SA”.

[https://cdn.www.gob.pe/uploads/document/file/581756/DS_013-2020-SA.PDF]. Accessed 13 December 2020.

3.7.1b

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

Yes = 0, No = 1

Current Year Score: 1

In Peru, there is no public evidence that the country has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g.: food, textiles, etc.) due to an infectious disease outbreak in the past year. The World Trade Organization’s (WTO) list of COVID-related trade measures does not list any restrictions on trade imposed by Peru. [1] The Latin American and Caribbean Economic System’s (SELA) summary of measures taken by its member countries, including Peru, does not list any trade restrictions imposed by the government during the past year. [2] The websites of the Ministry of Health, Ministry of Agricultural Development and Irrigation, Ministry of External Relations, and Ministry of External Trade and Tourism, as well as national media outlets do not contain additional public information regarding a restriction, without international/bilateral support, on the export/import of non-medical goods due to an infectious disease outbreak in the past year. [3, 4, 5, 6, 7, 8, 9]

- [1] World Trade Organization. 2020. "Trade-related goods measures".
[https://www.wto.org/english/tratop_e/covid19_e/trade_related_goods_measure_e.htm]. Accessed 13 December 2020.
- [2] Latin American and Caribbean Economic System. 2020. "Summary of COVID-related measures".
[<http://www.sela.org/media/3219723/covid-19-resumen-de-las-principales-medidas-estados-miembros-sela.pdf>]. Accessed 14 November 2020.
- [3] Ministry of External Trade and Tourism (Ministerio de Comercio Exterior y Turismo). 2020. "MINCETUR".
[<https://www.gob.pe/mincetur>]. Accessed 9 December 2020.
- [4] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. "MIDAGRI".
[<https://www.gob.pe/midagri>]. Accessed 9 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [6] Ministry of External Relations (Ministerio de Relaciones Exteriores). 2020. "RR.EE.". [<https://www.gob.pe/rree>]. Accessed 13 December 2020.
- [7] El Comercio. 2020. "Search results".
[<https://elcomercio.pe/buscar/restriccion+comercio/todas/descendiente/?query=restriccion+comercio>]. Accessed 13 December 2020.
- [8] Gestion. 2020. "Search results".
[<https://gestion.pe/buscar/restriccion+comercio/todas/descendiente/?query=restriccion+comercio>]. Accessed 13 December 2020.
- [9] RPP. 2020. "Search results". [<https://rpp.pe/buscar?q=restriccion%20comercio>]. Accessed 13 December 2020.

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0, No = 1

Current Year Score: 0

In Peru, 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. In March 2020, Peru issued Supreme Decree No. 044-2020-PCM, which declared a "National State of Emergency for the grave circumstances that affect the life of the Nation as a consequence of the outbreak of COVID-19". [1] Article 8 mandated the temporary closure of Peru's borders, stating "8.1 During the state of emergency, the total closure of borders is ordered, which means that international transport of passengers is suspended by land, air, sea and river." [1]

- [1] President of the Republic (Presidente de la Republica). 2020. "Supreme Decree No. 044-2020-PCM".
[https://cdn.www.gob.pe/uploads/document/file/566448/DS044-PCM_1864948-2.pdf]. Accessed 14 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: 130.48

2016

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 243.98

2018

WHO; national sources

4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 1

In Peru, the Ministry of Health (MINSA) has issued a health workforce strategy, which has been updated in the past five years, to identify fields where there is an insufficient workforce and strategies to address these shortcomings. In December 2018, MINSA approved the National Plan for Professional Training and Capacity Development in Human Resources in Health 2018-2021 (PLANDES) via Ministerial Resolution No. 1337-2018/MINSA. [1] PLANDES' overall objective is to "ensure that Human Resources in Healthcare have sufficient and appropriate professional and human competencies to respond to the expectations, demands, and necessities of health for the Peruvian population. [2] PLANDES accounts for MINSA principal policies for care and human resources developed during the last decade and its actions are focused on two strategic approaches: professional training and capacity development. [2] In terms of identifying workforce gaps, MINSA regularly publishes updated information on the health workforce and gaps. [3] The most recent full report was published in 2020 and includes data from 2018. [4] In addition, MINSA maintains an online dashboard with updated information on human resource

needs, availability and distribution across the country. [5]

- [1] Ministry of Health (Ministerio de Salud). 2018. "Ministerial Resolution No. 1337-2018/MINSA". [https://cdn.www.gob.pe/uploads/document/file/264001/Resoluci%C3%B3n_Ministerial_N__1337-2018-MINSA.PDF]. Accessed 14 December 2020.
- [2] Ministry of Health (Ministerio de Salud). 2019. "National Plan for Professional Training and Capacity Development in Human Resources in Health 2018-2021 (PLANDES)". [http://bvs.minsa.gob.pe/local/MINSA/4940.pdf]. Accessed 14 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2020. "Serie Bibliográfica de Recursos Humanos en Salud". [http://digep.minsa.gob.pe/publicaciones.html]. Accessed 14 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2020. "Information on Human Resources in the Health Sector Peru – 2018". [https://drive.minsa.gob.pe/s/SPSCikgyzBfNssx#pdfviewer]. Accessed 14 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2020. "Information on Human Resources in Healthcare MINSA and Regional Governments, 2020". [https://app.powerbi.com/view?r=eyJrjoiMDNjOWRmNzYtMDdiYi00OGU1LTllMDgtNjdIMjhjODJmNTlyliwidCI6ImI3ZDjiMWZkLWU3NjMtNDY5ZS05NjE5LWw5M2I3MmEyYzUwMyJ9&pageName=ReportSection59d61fb40feb0d4a46db]. Accessed 14 December 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 159

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: 1

In Peru, there is some public evidence that the country has 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. In June 2020, Archbishop Loayza National Hospital implemented a plan to upgrade the area where COVID-19 patients are isolated. The plan states that previously the General Intensive Care Unit "did not have respiratory isolation measures". The upgrades included "Conditioning for air flow for the respiratory isolation area: Negative pressure air flow (extractors, injectors, HEPA filters). [1] Peru's COVID-19 guidelines and general patient isolation guidelines call for patient isolation in areas with negative air pressure when possible and available. [2]

- [1] Ministry of Health (Ministerio de Salud). 2020. "Expansion Plan COVID ICU Pavilion No. 04". [http://hospitalloayza.gob.pe/files/TRAS_1e2139509a35573_.pdf]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2003. "Isolation Manual".

[ftp://ftp2.minsa.gob.pe/descargas/dgsp/documentos/dess/manual%20de%20aislamiento.pdf]. Accessed 14 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Technical Document: Management of Persons Affected by COVID-19 in

Critical Care Areas". [https://cdn.www.gob.pe/uploads/document/file/687500/R.M._N__254-2020-MINSA.PDF]. Accessed 14 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 insufficient public evidence that Peru has, in the past two years, demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak or developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak. In Peru, there is no public evidence that the government has an overarching national public health emergency response plan in place which addresses planning for multiple communicable diseases with epidemic or pandemic potential. The government of Peru has issued multiple emergency response plans for specific diseases via the Ministry of Health (MINSA), but these do not address expanding isolation capacity. [1, 2, 3, 4, 5, 6] The websites of the Ministry of Health and National Institute of Civil Defense do not contain additional information regarding if Peru has, in the past two years, demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak or developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak. [7, 8] In May 2020, the government of Peru reported that it had expanded treatment capacity for COVID-19 patients, but did not specifically mention expansion of isolation capacity. [9]

[1] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015".

[http://bvs.minsa.gob.pe/local/minsa/3258.pdf]. Accessed 10 December 2020.

[2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2010. "National Plan for Prevention and Response to Influenza". [http://bvpad.indeci.gob.pe/doc/pdf/esp/doc1438/doc1438.pdf]. Accessed 11 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness – Peru, 2016". [ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSA%20Doc%20Tec%20I.PDF].

Accessed 10 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2015. "National Plan for Preparation and Response to the Possible Introduction of the Ebola Virus". [http://bvs.minsa.gob.pe/local/MINSA/3294.pdf]. Accessed 10 December 2020.

[5] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2007. "National Emergency Operations Plan". [http://sinpad.indeci.gob.pe/UploadPortalSINPAD/PNOE.pdf]. Accessed 11 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. "National Plan for Preparation and Response to the risk of the introduction of Coronavirus 2019-nCoV". [https://cdn.www.gob.pe/uploads/document/file/505245/resolucion-ministerial-039-2020-MINSA.PDF]. Accessed 11 December 2020.

[7] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [https://www.gob.pe/minsa/]. Accessed 9 December 2020.

[8] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [https://www.gob.pe/indeci]. Accessed 11 December 2020.

[9] Presidency of the Council of Ministers (Presidencia del Consejo de Ministros). 2020. "Government increases response capacity". [<http://www.descentralizacion.gob.pe/index.php/2020/05/26/gobierno-amplia-capacidad-de-respuesta-de-centro-de-aislamiento-villa-mongrut-para-pacientes-covid-19/>]. Accessed 25 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

In Peru, there is a national procurement protocol in place which can be utilized by the Ministries of Health (MINSA) and Agricultural Development and Irrigation (MIDAGRI) for the acquisition of laboratory supplies (such as equipment, reagents and media) and medical supplies (equipment, PPE) for routine needs. Peru has a national procurement protocol which can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory needs. "Peru Compras" is the government's online procurement portal. The authorized categories are in electronic catalogues in the system. [1] There is public evidence that MINSA acquired PPE via direct contract and laboratory testing supplies via Peru Compras' electronic catalogue in 2020. [2, 3] There is public evidence that MIDAGRI acquired PPE (latex gloves and face masks) via electronic catalogue purchases and laboratory supplies (biological reagents) via international contract in 2020. [4, 5]

[1] Peru Compras. 2020. "Compradores". [<http://www.perucompras.gob.pe/compradores/quien-puede-ser-comprador.php>]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 998-2020-MINSA". [<https://www.gob.pe/institucion/minsa/normas-legales/1369545-998-2020-minsa>]. Accessed 14 December 2020.

[3] Peru Compras. 2020. "Purchase Order 113812". [https://apps1.perucompras.gob.pe//OrdenCompra/obtenerPdfOrdenPublico?ID_OrdenCompra=1138122&ImprimirCompleto=1]. Accessed 14 December 2020.

[4] Peru Compras. 2020. "Purchase Order 108799". [https://apps1.perucompras.gob.pe//OrdenCompra/obtenerPdfOrdenPublico?ID_OrdenCompra=1087996&ImprimirCompleto=1]. Accessed 14 December 2020.

[5] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. "Directorial Resolution No. 0119-2020-MINAGRI-SENASA-OAD". [<https://www.senasa.gob.pe/senasa/descargasarchivos/2020/09/RD-0119-2020-MINAGRI-SENASA-OAD.pdf>]. Accessed 14 December 2020.

4.2.2 Stockpiling for emergencies

4.2.2a

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

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

Current Year Score: 0

In Peru, there is insufficient public evidence that the government has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. The National Supply Center for Strategic Healthcare Resources (CENARES) is part of the Ministry of Health (MINSA) and is tasked with programming purchases and distribution for normal healthcare needs in the public health system as well as for emergency situations. [1] CENARES operates two warehouses where it receives medical supplies and ships them across the country to facilities in the public healthcare system. [1] CENARES Warehousing and Distribution Center is tasked with ensuring availability of "strategic healthcare resources" to meet regular needs as well as for "emergency situations, disasters or epidemic outbreaks". However, public evidence does not mention the existence of a stockpile. [2] CENARES coordinates with the Ministry of Health and its sub-departments to properly plan for resource needs, as well as with international organizations in order to receive donations and other support. [1] MINSA's "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015" Activity 3.1 states that the ministry should create a "national reserve of protection equipment and biosafety material for use in case of an influenza pandemic or other emerging respiratory viruses". Activity 4.1 states that the ministry should "guarantee the safety stock of antivirals at the national level in appropriate conditions in coordination with PAHO [Pan American Health Organization]". The plan does not provide evidence of implementation. [3] However, the Global Health Security Agenda (GHS) pilot assessment carried out in 2015 noted that Peru did not have a stockpile of medical countermeasures and did not mention a stockpile of PPE or other medical supplies. [4] The websites of the Ministry of Health (including the drug regulatory agency), National Institute of Civil Defense, Ministry of Defense, and Ministry of Justice and Human Rights do not contain additional public information regarding a stockpile of medical supplies. [5, 6, 7, 8]

[1] Ministry of Health (Ministerio de Salud). 2020. "CENARES". [<https://www.gob.pe/4465-centro-nacional-de-abastecimiento-de-recursos-estrategicos-en-salud-que-hacemos>]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "CENARES Process of Storage and Distribution". [<https://www.gob.pe/9688-centro-nacional-de-abastecimiento-de-recursos-estrategicos-en-salud-proceso-almanamiento-y-distribucion>]. Accessed 14 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015". [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[4] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU". [<https://stm.fi/documents/1271139/1356256/Peru+GHS+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[6] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indecj>]. Accessed 13 December 2020.

[7] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[8] Ministry of Justice and Human Rights (Ministerio de Justicia y Derechos Humanos). 2020. "MINJUS". [<https://www.gob.pe/minjus>]. Accessed 14 December 2020.

4.2.2b

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

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

Current Year Score: 0

In Peru, there is insufficient public evidence that the government has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The National Supply Center for Strategic Healthcare Resources (CENARES) is part of the Ministry of Health (MINSA) and is tasked with programming purchases and distribution for normal healthcare needs in the public health system as well as for emergency situations. [1] CENARES operates two warehouses where it receives medical and laboratory supplies and ships them across the country to facilities in the public healthcare system. [1] CENARES Warehousing and Distribution Center is tasked with ensuring availability of "strategic healthcare resources" to meet regular needs as well as for "emergency situations, disasters or epidemic outbreaks". However, public evidence does not mention the existence of a stockpile. [2] CENARES coordinates with the Ministry of Health and its sub-departments to properly plan for resource needs, as well as with international organizations in order to receive donations and other support. [1] MINSA's "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015" Activity 3.1 states that the ministry should create a "national reserve of protection equipment and biosafety material for use in case of an influenza pandemic or other emerging respiratory viruses". The plan does not mention a stockpile of laboratory supplies. [3] The Global Health Security Agenda (GHSA) pilot assessment carried out in 2015 noted that Peru did not have a stockpile of medical countermeasures and did not mention a stockpile of laboratory supplies. [4] The websites of the Ministry of Health (including the drug regulatory agency), National Institute of Civil Defense, Ministry of Defense, and Ministry of Justice and Human Rights do not contain additional public information regarding a stockpile of laboratory supplies. [5, 6, 7, 8]

[1] Ministry of Health (Ministerio de Salud). 2020. "CENARES". [<https://www.gob.pe/4465-centro-nacional-de-abastecimiento-de-recursos-estrategicos-en-salud-que-hacemos>]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "CENARES Process of Storage and Distribution".

[<https://www.gob.pe/9688-centro-nacional-de-abastecimiento-de-recursos-estrategicos-en-salud-proceso-almanamiento-y-distribucion>]. Accessed 14 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015".

[<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[4] Global Health Security Agenda. 2015. "GLOBAL HEALTH SECURITY AGENDA PILOT ASSESSMENT OF PERU".

[<https://stm.fi/documents/1271139/1356256/Peru+GHSA+Pilot+Assessment+Report+26.2.2015.pdf/4f74f62d-f552-401d-812a-383051b1bafa>]. Accessed 8 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[6] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 13 December 2020.

[7] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[8] Ministry of Justice and Human Rights (Ministerio de Justicia y Derechos Humanos). 2020. "MINJUS".

[<https://www.gob.pe/minjus>]. Accessed 14 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 public evidence that the government of Peru conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. There is insufficient public evidence that Peru has a stockpile of medical and laboratory supplies. The National Supply Center for Strategic Healthcare Resources (CENARES) is part of the Ministry of Health (MINSA) and is tasked with programming purchases and distribution for normal healthcare needs in the

public health system as well as for emergency situations. [1] However, public evidence does not mention the existence of a stockpile. [2] The websites of the Ministry of Health (including the drug regulatory agency), National Institute of Civil Defense, Ministry of Defense, and Ministry of Justice and Human Rights do not contain additional public information regarding an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. [3, 4, 5, 6]

[1] Ministry of Health (Ministerio de Salud). 2020. "CENARES". [<https://www.gob.pe/4465-centro-nacional-de-abastecimiento-de-recursos-estrategicos-en-salud-que-hacemos>]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "CENARES Process of Storage and Distribution".

[<https://www.gob.pe/9688-centro-nacional-de-abastecimiento-de-recursos-estrategicos-en-salud-proceso-almanamiento-y-distribucion>]. Accessed 14 December 2020.

[3] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[4] Ministry of Justice and Human Rights (Ministerio de Justicia y Derechos Humanos). 2020. "MINJUS".

[<https://www.gob.pe/minjus>]. Accessed 14 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa>]. Accessed 9 December 2020.

[6] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 13 December 2020.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is insufficient evidence that Peru has a plan or agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency nor of a mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

Law No. 30225, last updated in 2019, Article 27, section b) states that in the event of a declared national health emergency direct contracting by government agencies is allowed in order to streamline purchasing of emergency supplies. [1] Communication No. 011-2020-SA confirmed the government's view that direct contracting for medical supplies is allowed during the COVID-19 public health emergency in Peru. [2] Supreme Decree No. 010-2020-SA documents that emergency contracting powers have been used during 2020 to purchase MCMs such as vaccines, PPE and ventilators. [3] In addition, the National Supply Center for Strategic Healthcare Resources (CENARES) maintains an online dashboard showing emergency purchases of PPE and medical oxygen during the COVID-19 pandemic. [4] The websites of the Ministry of Health (including the drug regulatory agency), National Institute of Civil Defense, Ministry of Defense, and Ministry of Justice and Human Rights do not contain additional public information regarding a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies for national use during a public health emergency. [5, 6, 7, 8]

[1] Government of Peru. 2019. "Law No. 30225".

[https://portal.osce.gob.pe/osce/sites/default/files/Documentos/legislacion/ley/2018_DL1444/TUO_ley-30225-DS-082-2019-

EF.pdf]. Accessed 14 December 2020.

[2] Supervisory Organization for State Procurement (Organismo Supervisor de las Contrataciones del Estado). 2020. "Communication No. 011-2020-SA". [<https://www.gob.pe/institucion/osce/noticias/131680-comunicado-n-011-2020-orientaciones-de-la-direccion-tecnico-normativa-respecto-del-alcance-de-la-normativa-de-contrataciones-en-el-marco-del-estado-de-emergencia-nacional>]. Accessed 14 December 2020.

[3] President of the Republic (Presidente de la Republica). 2020. "Supreme Decree No. 010-2020-SA". [https://cdn.www.gob.pe/uploads/document/file/566437/DS_010-2020-SA.PDF]. Accessed 14 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. "National COVID-19 Procurement". [<http://sol.cenares.minsa.gob.pe:8080/covid19.xhtml>]. Accessed 14 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[6] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 13 December 2020.

[7] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.

[8] Ministry of Justice and Human Rights (Ministerio de Justicia y Derechos Humanos). 2020. "MINJUS". [<https://www.gob.pe/minjus>]. Accessed 14 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: 1

In Peru, there is public evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency; there is no public evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency. Law No. 30225, last updated in 2019, Article 27, section b) states that in the event of a declared national health emergency direct contracting by government agencies is allowed in order to streamline purchasing of emergency supplies. [1] Communication No. 011-2020-SA confirmed the government's view that direct contracting for laboratory supplies is allowed during the COVID-19 public health emergency in Peru. [2] Supreme Decree No. 010-2020-SA documents that emergency contracting powers have been used during 2020 to purchase PCR testing supplies. [3] In addition, the National Supply Center for Strategic Healthcare Resources (CENARES) maintains an online dashboard showing emergency purchases during the COVID-19 pandemic, including diagnostic tests. [4] The websites of the Ministry of Health (including the drug regulatory agency), National Institute of Civil Defense, Ministry of Defense, and Ministry of Justice and Human Rights do not contain additional public information regarding a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency. [5, 6, 7, 8]

[1] Government of Peru. 2019. "Law No. 30225".

[https://portal.osce.gob.pe/osce/sites/default/files/Documentos/legislacion/ley/2018_DL1444/TUO_ley-30225-DS-082-2019-EF.pdf]. Accessed 14 December 2020.

[2] Supervisory Organization for State Procurement (Organismo Supervisor de las Contrataciones del Estado). 2020. "Communication No. 011-2020-SA". [<https://www.gob.pe/institucion/osce/noticias/131680-comunicado-n-011-2020-orientaciones-de-la-direccion-tecnico-normativa-respecto-del-alcance-de-la-normativa-de-contrataciones-en-el-marco-del-estado-de-emergencia-nacional>]. Accessed 14 December 2020.

- [3] President of the Republic (Presidente de la Republica). 2020. "Supreme Decree No. 010-2020-SA". [https://cdn.www.gob.pe/uploads/document/file/566437/DS_010-2020-SA.PDF]. Accessed 14 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2020. "National COVID-19 Procurement". [http://sol.cenares.minsa.gob.pe:8080/covid19.xhtml]. Accessed 14 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2020. "MINSa". [https://www.gob.pe/minsa/]. Accessed 9 December 2020.
- [6] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [https://www.gob.pe/indeci]. Accessed 13 December 2020.
- [7] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [https://www.gob.pe/mindef]. Accessed 9 December 2020.
- [8] Ministry of Justice and Human Rights (Ministerio de Justicia y Derechos Humanos). 2020. "MINJUS". [https://www.gob.pe/minjus]. Accessed 14 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

In Peru, there is insufficient public evidence of a program and guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (PHE). The country's public health emergency plans contain minimal guidelines for local health authorities to dispense medical countermeasures. The 2015 influenza response plan states that the government must ensure a minimum inventory of antiviral medications, implement mechanisms to ensure distribution of medicines to health care facilities, monitor local availability of medicines and train personnel for proper use and prescribing of antiviral medications. [1] Peru's 2016 Zika plan states that the government must ensure that local health districts have sufficient medicines and devices to treat patients with the virus as well as strengthen local health district capacities for supply management and care delivery. [2] In terms of a program to dispense MCMs during a PHE, the Ministry of Health (MINSa) can activate Health Brigades for emergency response and these teams can dispense MCMs and provide patient care. [3] Directive No. 053-2005-MINSa/OGDN describes the organization and operations of MINSa's Health Brigades. They operate at the regional and local levels and are available to respond to "emergencies, disasters, and epidemics". The brigades' activities include patient care and "supply management and logistical support", among others. Patient Care Brigades include a doctor, nurse, and two nursing assistants and can provide medical care for victims and support local healthcare infrastructure. [4] MINSa reports document Health Brigades dispensing MCMs in emergencies in 2006 and 2019. [5, 6] The websites of the Ministry of Health (including the drug regulatory agency), National Institute of Civil Defense, Ministry of Defense, and Ministry of Justice and Human Rights do not contain additional public information regarding a plan, program, or guidelines in place for dispensing medical countermeasures for national use during a public health emergency. [7, 8, 9, 10]

[1] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015".

[http://bvs.minsa.gob.pe/local/minsa/3258.pdf]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2016. "National Plan for Preparation and Response to the Zika virus illness – Peru, 2016". [ftp://ftp2.minsa.gob.pe/comunicados/ogc/CO07-01-2016/RM%20044-2016-MINSa%20Doc%20Tec%20I.PDF].

Accessed 10 December 2020.

- [3] Ministry of Health (Ministerio de Salud). 2019. "Health sector intervention during a large-scale disaster". [<https://www.indeci.gob.pe/wp-content/uploads/2019/01/fil20150814153650.pdf>]. Accessed 14 December 2020.
- [4] Ministry of Health (Ministerio de Salud). 2014. "Directive No. 053-2005-MINSA/OGDN". [<ftp://ftp2.minsa.gob.pe/descargas/Transparencia/01InformacionInst/archivolegaldigital/Directiva2005/D053-MINSA-OGDN.PDF>]. Accessed 14 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2014. "MINSA sends medicines and medical brigades to care to injured in Huanuco". [<https://www.gob.pe/institucion/minsa/noticias/41132-minsa-envia-medicamentos-y-brigadas-medicas-para-atender-a-damnificados-de-huanuco>]. Accessed 14 December 2020.
- [6] Ministry of Health (Ministerio de Salud). 2014. "Emergency brigades continue care in areas affected by Ubinas volcano". [<https://www.minsa.gob.pe/digerd/?op=61¬=424>]. Accessed 14 December 2020.
- [7] Ministry of Defense (Ministerio de Defensa). 2020. "MINDEF". [<https://www.gob.pe/mindef>]. Accessed 9 December 2020.
- [8] Ministry of Justice and Human Rights (Ministerio de Justicia y Derechos Humanos). 2020. "MINJUS". [<https://www.gob.pe/minjus>]. Accessed 14 December 2020.
- [9] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.
- [10] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2020. "INDECI". [<https://www.gob.pe/indeci>]. Accessed 13 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: 1

In Peru, there is a public plan in place to receive health personnel from other countries to respond to a public health emergency. In 2016, the Ministry of Health (MINSA) issued a plan for "Implementation of the Strategy for Emergency Medical Teams (EMT) for Response to Disasters in Peru". The plan considers both national and international EMTs. Appendix 3 provides detailed information and steps for requesting and receiving international EMTs, including determining needs and priorities, using a virtual platform to gather information from international EMTs, reviewing documentation, and arranging licensing, among others. [1] In practice, during the COVID-19 pandemic, MINSA and the Ministry of Public Health of Cuba arranged for a team of 85 Cuban medical professionals to assist response efforts in Peru. The agreements regarding the arrival of the Cuban medical professionals cover aspects ranging from transportation to stipends to conflict resolution, among others. [2, 3]

- [1] Ministry of Health (Ministerio de Salud). 2016. "Implementation of the Strategy for Emergency Medical Teams (EMT) for Response to Disasters in Peru". [<http://bvs.minsa.gob.pe/local/MINSA/3941.pdf>]. Accessed 14 December 2020.
- [2] Ministry of Health (Ministerio de Salud). 2020. "MINSA – Ministry of Public Health of Cuba Agreement". [https://cdn.www.gob.pe/uploads/document/file/1009597/Acuerdo_MINSA_-_Min._de_Salud_de_Cuba.pdf]. Accessed 14 December 2020.
- [3] Ministry of Health (Ministerio de Salud). 2020. "Inter-Institutional Framework MINSA - Ministry of Public Health of Cuba". [https://cdn.www.gob.pe/uploads/document/file/1009865/Acuerdo_Marco_Interinstitucional_MINSA_-_Min._de_Salud_de_Cuba.pdf]. Accessed 14 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: 3

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 92.4

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: 192.03

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

In Peru, there is insufficient public evidence that the government has issued legislation, a policy, or a public statement committing to provide prioritized healthcare services to healthcare workers (HCW) who become sick as a result of responding to a public health emergency. The Ministry of Health (MINSA) has issued guidelines stating that HCW will receive prioritized care if they become sick with COVID-19 as a result of their work. [1] However, the document containing the guidelines states that it is specific to the situations arising from COVID-19 and there is no public evidence that it would apply to other emergencies. [1] Other guidelines provide priority testing and prophylaxis for HCW responding to a public health emergency, such as in cases of COVID-19 or pandemic influenza. [2, 3] Law No. 30287 of 2014 on treating the tuberculosis crisis in Peru states that healthcare workers that contract the diseases as a result of their work will receive standard treatment according to the Ministry of Health's guidelines. [4] The law's accompanying regulations (D.S. 021-2016-SA) state that healthcare workers treating tuberculosis should receive annual exams. In addition, healthcare workers should receive occupational hazard insurance. [5]

[1] Ministry of Health (Ministerio de Salud). 2020. "Ethical considerations for making healthcare decisions during the COVID-19 pandemic". [<https://cdn.www.gob.pe/uploads/document/file/871496/consideraciones-eticas-para-la-toma-de-decisiones-en-los-servicios-de-salud-durante-la-pandemia-covid-19-v2.pdf>]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 139-2020/MINSA". [<https://cdn.www.gob.pe/uploads/document/file/574295/resolucion-ministerial-139-2020-MINSA.PDF>]. Accessed 14 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2014. "National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015". [<http://bvs.minsa.gob.pe/local/minsa/3258.pdf>]. Accessed 10 December 2020.

[4] President of the Republic (Presidente de la Republica). 2014. "Ley No. 30287". [<https://busquedas.elperuano.pe/normaslegales/ley-de-prevencion-y-control-de-la-tuberculosis-en-el-peru-ley-n-30287-1176989-1/>]. Accessed 14 December 2020.

[5] President of the Republic (Presidente de la Republica). 2016. "DECRETO SUPREMO N° 021-2016-SA". [ftp://ftp2.minsa.gob.pe/normaslegales/2016/DS_021.pdf]. Accessed 14 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: 1

In Peru, there is a system in place for public health officials and healthcare workers (HCW) to communicate during a public health emergency. The Ministry of Health's (MINSa) Health Emergency Operations Center's ("COE Salud") operations manual ("Organization and Functioning of the Emergency Operations Centre and the Emergency Monitoring Areas and Healthcare Sector Disasters"), approved by Ministerial Resolution No. 628-2018/MINSa, contains a section on communications between public health officials and healthcare workers. [1] COE Salud's Inter-Institutional Coordination Unit is charged with compiling, monitoring, consolidating and coordinating information regarding emergencies with first responders and healthcare workers from public and private entities. [1] In addition, the Operations Unit also coordinates with emergency medical teams to receive and share information in the early stages of emergencies. [1] MINSa maintains a system with HF (high frequency) and VHF (very high frequency) equipment to communicate with HCW around the country. In the event of an emergency, communications occur at scheduled times on specific frequencies for each region. [2] In areas with sufficient connectivity, HCW in the field can also use a mobile app to report information to the COE Salud and local and regional bodies. [2]

[1] Ministry of Health (Ministerio de Salud). 2018. "Organización y Funcionamiento del Centro de Operaciones de Emergencias y de los Espacios de Monitoreo de Emergencias y Desastres del Sector Salud".

[<http://bvs.minsa.gob.pe/local/MINSA/4451.pdf>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2019. "Health sector intervention during a large-scale disaster".

[<https://www.indeci.gob.pe/wp-content/uploads/2019/01/fil20150814153650.pdf>]. Accessed 14 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: 1

In Peru, the system in place for public health officials and healthcare workers (HCW) to communicate during a public health emergency encompasses healthcare workers in both the public and private sector. The Ministry of Health's (MINSa) Health Emergency Operations Center's ("COE Salud") operations manual ("Organization and Functioning of the Emergency Operations Centre and the Emergency Monitoring Areas and Healthcare Sector Disasters"), approved by Ministerial Resolution No. 628-2018/MINSa, contains a section on communications between public health officials and healthcare workers. [1] COE Salud's Inter-Institutional Coordination Unit is charged with compiling, monitoring, consolidating and coordinating information regarding emergencies with first responders and healthcare workers from public and private entities, specifically "Red Cross as well as private institutions and other entities that mobilize human resources that provide health care". [1] In addition, the Operations Unit also coordinates with emergency medical teams to receive and share information in the early stages of emergencies. [1] MINSa maintains a system with HF (high frequency) and VHF (very high frequency) equipment to communicate with HCW around the country. In the event of an emergency, communications occur at scheduled times on specific frequencies for each region. [2] In areas with sufficient connectivity, HCW in the field can also use a mobile app to report information to the COE Salud and local and regional bodies. [2]

[1] Ministry of Health (Ministerio de Salud). 2018. "Organización y Funcionamiento del Centro de Operaciones de Emergencias y de los Espacios de Monitoreo de Emergencias y Desastres del Sector Salud".

[<http://bvs.minsa.gob.pe/local/MINSA/4451.pdf>]. Accessed 10 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2019. "Health sector intervention during a large-scale disaster".

[<https://www.indeci.gob.pe/wp-content/uploads/2019/01/fil20150814153650.pdf>]. Accessed 14 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: 1

In Peru, the national public health system monitors for and tracks the number of healthcare associated infections (HCAI) that take place in healthcare facilities. The Ministry of Health's (MINSA) National Center for Epidemiology, Prevention and Control of Diseases (CDC-Peru) monitors and tracks the number of health care associated infections that take place in healthcare facilities. [1] CDC-Peru's HCAI surveillance is regulated by NTS (Technical Health Regulation) N° 163 –MINSA/2020/CDC, which was approved by Ministerial Resolution No. 523-2020-MINSA. [1] The center incorporates the data in its normal epidemiological surveillance system. [1] A study of 2016 data looked at HCAI cases from 242 facilities in Peru and found that pneumonia from mechanical breathing machines had the highest incidence rate. [2]

[1] Ministry of Health (Ministerio de Salud). 2020. "Surveillance, prevention and control of intra-hospital infections". [<https://www.dge.gob.pe/portalnuevo/vigilancia-epidemiologica/vigilancia-prevencion-y-control-de-las-infecciones-intrahospitalarias/>]. Accessed 14 December 2020.

[2] National Center for Epidemiology, Prevention and Control of Diseases (Centro Nacional de Epidemiología, Prevención y Control de Enfermedades). 2017. "Indicadores epidemiológicos de referencia de infecciones intrahospitalarias - infecciones asociadas a la atención de la salud, Perú-2016". [<http://www.dge.gob.pe/porta/docs/vigilancia/boletines/2017/12.pdf>]. Accessed 14 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: 1

In Peru, there is a national requirement for ethical review (e.g., from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. Supreme Decree No. 021-2017-SA approved the Regulations for Clinical Trials. Article 67 establishes the requirements for the authorization of a clinical trial, and section d) requires a "copy of the approval document for the research protocol and the informed consent forms emitted by the respective CIEI [Institutional Committee for Research Ethics] accredited by the INS according to the model established in the Procedures Manual for Clinical Trials".

[1] The National Institute of Health (INS) in section 3.1.1 of its manual on clinical trials reiterates this requirement, stating that it must have the approval of a registered ethics board before it will authorize a clinical trial. The INS accredits the creation and operation of institutional ethics boards at facilities that conduct clinical trials and research. The approval process takes between 15 and 30 days. The INS also inspects the "management, organization and functioning" of ethics boards periodically. [2]

[1] National Institute of Health (Instituto Nacional de Salud). 2020. "Supreme Decree No. 021-2017-SA". [https://repositorio.ins.gob.pe/xmlui/bitstream/handle/INS/1113/ENSAYOS%20CL%c3%8dNICOS%202018.pdf?sequence=1&isAllowed=y]. Accessed 14 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2012. "Manual de Procedimientos para la Realizacion de Ensayos Clinicos en el Peru". [https://repositorio.ins.gob.pe/bitstream/handle/INS/125/OGITT-0006.pdf?sequence=3&isAllowed=y]. Accessed 14 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: 1

In Peru, there is an expedited process for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics. In April 2020, the Ministry of Health (MINSa) issued Ministerial Resolution No. 233-2020-MINSA, which approved the Technical Document: "Ethical Considerations for Health Research in Human Beings". [1] Section 7.2.3, section i) states that research ethics committees (CEI) can consider expedited reviews as long as they establish what the required procedures will be, "as well as the criteria that will enable this type of review". [1] In practice, during the COVID-19 pandemic, MINSa, via the National Institute of Health (INS), has enabled this type of expedited review. In April 2020, INS issued Departmental Resolution No. 097-2020-J-OPE/INS, which approved the "Procedure for ethical review of Clinical Trials regarding the COVID-19 Disease". [2] The procedure created a special temporary ethics committee (CNTEI-COVID19) to deal with all COVID-19 related trials on an expedited basis (Section 4.2.1). [2]

[1] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 233-2020-MINSA". [https://cdn.www.gob.pe/uploads/document/file/662949/RM_233-2020-MINSA_Y_ANEXOS.PDF]. Accessed 14 December 2020.

[2] National Institute of Health (Instituto Nacional de Salud). 2020. "Departmental Resolution No. 097-2020-J-OPE/INS". [https://ensayosclinicos-repec.ins.gob.pe/images/RJ_COVID-19/RJ_097-2020-J-OPE-INS_-_PROCEDIMIENTO_CNTEI-COVID19.pdf]. Accessed 14 December 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1 , No = 0

Current Year Score: 1

In Peru, there is a government agency responsible for approving new medical countermeasures (MCM) for humans. Law No. 29459 of 2009, which regulates pharmaceutical products, medical devices and health products, states in Article 5 that the

National Authority for Pharmaceutical Products, Medical Devices and Health Products must issue a license for all of the aforementioned products. The license must be renewed every five years. [1] The Ministry of Health's (MINSA) General Directorate of Medicines, Inputs and Drugs (DIGEMID) is the National Authority mentioned above and regulates all pharmaceutical products, medical devices and health products. [2]

[1] Congress of the Republic (Congreso de la Republica). 2009. "Ley No. 29459".
[http://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Ley_productos_farmaceuticos_dispositivos_medicos_productos_santiarios.pdf]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "General Directorate of Medicines, Inputs and Drugs (DIGEMID)".
[<http://www.digemid.minsa.gob.pe/Main.asp?Seccion=39>]. Accessed 14 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: 1

In Peru, there is an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. Law No. 29459 of 2009, which regulates pharmaceutical products, medical devices and health products, states in Article 5 that the National Authority for Pharmaceutical Products, Medical Devices and Health Products must issue a license for all of the aforementioned products. [1] The Ministry of Health's (MINSA) General Directorate of Medicines, Inputs and Drugs (DIGEMID) is the National Authority mentioned above and regulates all pharmaceutical products, medical devices and health products. [2] DIGEMID's website contains a form dated from 2020 for firms to make a "Sworn Declaration to Solicit the Exceptional Authorization of Pharmaceutical Products in Emergency Situations or a Declared Emergency". [3] In terms of medical devices, MINSA has also issued regulations easing the interim of approval of diagnostic tests and devices related to COVID-19. [4, 5, 6]

[1] Congress of the Republic (Congreso de la Republica). 2009. "Ley No. 29459".
[http://www.vertic.org/media/National%20Legislation/Peru/Peru_PE_Ley_productos_farmaceuticos_dispositivos_medicos_productos_santiarios.pdf]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2020. "General Directorate of Medicines, Inputs and Drugs (DIGEMID)".
[<http://www.digemid.minsa.gob.pe/Main.asp?Seccion=39>]. Accessed 14 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2020. "Sworn Declaration to Solicit the Exceptional Authorization of Pharmaceutical Products in Emergency Situations or a Declared Emergency".
[http://www.digemid.minsa.gob.pe/UpLoad/UpLoaded/DOC/Tramites/Empresas/DECLARACION_JURADA_AE_FORMULARIO_29052020.docx]. Accessed 14 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 694-2020-MINSA".
[<https://cdn.www.gob.pe/uploads/document/file/1424145/RM%20N%C2%B0694-2020-MINSA.PDF>]. Accessed 14 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 231-2020-MINSA".
[<https://www.gob.pe/institucion/minsa/normas-legales/536519-231-2020-minsa>]. Accessed 14 December 2020.

[6] Ministry of Health (Ministerio de Salud). 2020. "Ministerial Resolution No. 184-2020-MINSA".
[<https://www.gob.pe/institucion/minsa/normas-legales/473513-184-2020-minsa>]. Accessed 14 December 2020.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 1

In Peru, epidemics and pandemics are mentioned in the national risk reduction strategy, and there are standalone risk management documents for the health sector that integrate risk management with epidemics and pandemics. In terms of the national strategy, 2014-2021 National Plan for Disaster Risk Management states, “the inappropriate use of space, added to the development of socioeconomic and cultural activities lacking a focus on disaster risk management create additional risks driven by manmade actions such as fires, explosions, pollution, epidemics, pandemics and others”. [1] The plan does not discuss further actions to reduce the risk of pandemics. [1] However, the Ministry of Health (MINSA) has published and updated a risk reduction and response strategy for a potential flu or other respiratory virus pandemic. In 2014, the Ministry of Health published the National Plan for Preparation and Response to a Potential Influenza Pandemic or Other Emerging Respiratory Virus and Seasonal Flu Increase (Plan Nacional de Preparación y Respuesta frente a una Potencial Pandemia de Influenza u Otros Virus Respiratorios Emergentes e Incremento Estacional de Influenza) [2] In addition, a 2019 MINSA presentation states that health risk reduction efforts are coordinated with the national risk reduction and management efforts. [1] Specifically, MINSA’s General Directorate of Disaster Risk and National Defense in Health issued a guide on Disaster Risk Management applied to the Health Sector that included epidemics and pandemics. [3, 4]

[1] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2014. “National Plan for Disaster Risk Management”. [<https://www.indeci.gob.pe/wp-content/uploads/2019/01/fil20150814153650.pdf>]. Accessed 14 December 2020.

[2] Ministry of Health (Ministerio de Salud). 2014. “National Plan for Preparation and Response to a Potential Influenza

Pandemic or Other Emerging Respiratory Viruses and Seasonal Increase in Influenza 2014-2015”.

[http://bvs.minsa.gob.pe/local/minsa/3258.pdf]. Accessed 10 December 2020.

[3] Ministry of Health (Ministerio de Salud). 2018. “Disaster Risk Management applied to the Health Sector”.

[http://bvs.minsa.gob.pe/local/MINSA/4628.pdf]. Accessed 14 December 2020.

[4] Ministry of Health (Ministerio de Salud). 2020. “Organization of the ministry”. [https://www.gob.pe/7662-ministerio-de-salud-organizacion-de-ministerio-de-salud]. Accessed 14 December 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 0

There is insufficient evidence that in Peru, the government has cross-border agreements as part of a regional group with regards to public health emergencies.

Peru is a member of the Andean Health Organization and in 2013 signed on to the organization’s Andean Plan for Risk Management in the Health Sector 2013-2017. The plan includes a strategic action to “strengthen connection tools among the systems for preparation, attention and mutual assistance in the health sector in the Andean subregion in case of disasters”.

[1] However, this is still in the planning phase and there is insufficient evidence that response agreements have been actually signed based on this plan. As a product of the plan, in 2017, the Andean Community issued Decision 819, which approved the Andean Strategy for Disaster Risk Management 2017-2030. Paragraph 56 of the strategy specifically lists epidemics as one of the disasters the strategy has planned for. Line of Action 4 under Thematic Axis 2 calls for cross-border cooperation to increase resilience and reduce the risk of disasters such as epidemics. [2]

Following the issuance of the Strategy in 2017, in 2019, the Andean Community issued the 2019-2030 Implementation Plan for the Andean Strategy for Disaster Risk Management. The Plan outlines indicators, activities and deliverables for the implementation of the Strategy. Line of Action 4, under Objective 2.1 states the cooperating governments shall “increase resilience and reduce the risk of disasters, including the risk of epidemics and displacements”. [3] No explicit mention of agreements of mutual aid at times of public health emergencies could be found.

[1] Organismo Andino de Salud – Convenio Hipólito Unánue. 2013. “Andean Plan for Risk Management in the Health Sector 2013-2017” (“PLAN ANDINO PARA LA GESTION DE RIESGOS DE DESASTRES EN EL SECTOR SALUD 2013 – 2017”).

[http://www.orasconhu.org/sites/default/files/files/Plan%20de%20accion%20-%20plan%20andino%20de%20desastres%202013.pdf]. Accessed 14 December 2020.

[2] Andean Community (Comunidad Andina). 2017. “Andean Strategy for Disaster Risk Management -- Decision 819” (“ESTRATEGIA ANDINA PARA LA GESTIÓN DEL RIESGO DE DESASTRES –EAGRD–Decisión 819”).

[http://www.comunidadandina.org/StaticFiles/2017522151956ESTRATEGIA%20ANDINA.pdf]. Accessed 14 December 2020.

[3] Andean Community (Comunidad Andina). 2019. “2019-2030 Implementation Plan for the Andean Strategy for Disaster Risk Management”. [http://www.comunidadandina.org/StaticFiles/Temas/AtencionPrevencionDesastres/Plan.pdf]. Accessed

14 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: 2

In Peru, the government has cross-border agreements as part of a regional group with regards to animal public health emergencies. Peru is a member of the Andean Community, as well as the Community's Andean System for Agricultural Safety. The System was created in 2002 by Andean Community Decision 515. [1] The System seeks to prevent and control diseases that could affect animals in the region, as well as serve as a mechanism for harmonizing national legislation in the Community. [1] The System has focused its work on preventing and eradicating foot-and-mouth disease and classical swine fever in the sub-region. [2] In 2017, the Andean Community, in collaboration with the United Nations Food and Agriculture Organization and the Pan American Health Organization, issued the "Sub-regional Strategy to Prevent the Introduction of Foot-and-Mouth Disease, and Action Plan to Improve the Management and Attention to Health Emergencies". The Plan includes the creation of an Emergency Group for coordination and support among the member countries' animal health agencies. The Group has three specific objectives: ensure the coordination of the strategy, evaluate the strategy to reorient objectives and the work plan, and provide technical support during an emergency. [3]

[1] Andean Community. 2002. "Decision 515". [<http://www.comunidadandina.org/StaticFiles/DocOf/DEC515.pdf>]. Accessed 14 December 2020.

[2] Andean Community. 2020. "Animal Health – Land Animals".

[<http://www.comunidadandina.org/Seccion.aspx?id=321&tipo=TE&title=sanidad-animal>]. Accessed 14 December 2020.

[3] Andean Community. 2017. "Sub-regional Strategy to Prevent the Introduction of Foot-and-Mouth Disease, and Action Plan to Improve the Management and Attention to Health Emergencies".

[<http://www.comunidadandina.org/StaticFiles/Temas/SanidadAnimal/FiebreAftosa01.pdf>]. Accessed 14 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: 1

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

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

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

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

Current Year Score: 1

2021

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

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

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

5.4.1a

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

5.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1, No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 1

In Peru, the government has allocated national funds to improve capacity to address epidemic threats within the past three years. In 2018, MINSA reported that it had allocated funds for “improvement of the conditions for controlling infections and biosafety” for tuberculosis at four healthcare facilities across the country. [1] The total investment was approximately US\$325,000. [1]

[1] Ministry of Health (Ministerio de Salud). 2018. “Multi-Year Public Investment Program for the Health Sector 2018-2020”. [ftp://ftp2.minsa.gob.pe/normaslegales/2018/PMIP_2018_2020.pdf]. Accessed 14 December 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1, No = 0

Current Year Score: 1

In Peru, there is a publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency. Peru's disaster emergency fund (FONDES) can be accessed in the face of a public health emergency. Supreme Decree No. 132-2017-EF regulates the operation of the fund. Article 3 allows funds to be used for natural or man-made disasters and interventions to prevent an impending threat. Appendix A specifies that funds can be used for public health needs, specifically "Investments in marginal expansion for essential public services – health" and "Investments in optimization of essential public services – health". [1] In addition, Law No. 28411 of 2004 (General Law for the National Budget System), Articles 44 and 45 establish a Contingency Reserve that must comprise at least 1% of the government's regular income and can be used "to finance expenses that by their nature and circumstances cannot be foreseen in the Budget". [2] In practice, during the COVID-19 pandemic, the government has used the Contingency Reserve to fund healthcare response to the public health emergency. [3]

[1] President of the Republic (Presidente de la Republica). 2017. "D.S. 132-2017-EF".

[<https://busquedas.elperuano.pe/normaslegales/aprueban-conformacion-y-funciones-de-la-comision-multisector-decreto-supremo-n-132-2017-ef-1518672-3/>]. Accessed 14 December 2020.

[2] Congress of the Republic (Congreso de la Republica). 2004. "Ley No. 28411". [<https://www.mef.gob.pe/es/por-instrumento/ley/5539-ley-n-28411/file>]. Accessed 14 December 2020.

[3] Ministry of Economy and Finances (Ministerio de Economía y Finanzas). 2020. "Emergency Decree N° 071-2020".

[<https://www.mef.gob.pe/es/normatividad-sp-9867/por-instrumento/decretos-de-urgencia/22679-decreto-de-urgencia-n-071-2020-1/file>]. Accessed 14 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

In Peru, there is insufficient public 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. Similarly, there is insufficient public evidence that senior leaders have made a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support. In 2019, the president of Peru visited and expressed support for the construction of the new National Emergency Operations Center (COEN), which was funded with support from China. [1] The upgraded COEN supports Peru's response efforts for all types of emergencies, including epidemics and pandemics. However, there is insufficient evidence of a statement committing to supporting additional response capacity. [2] The websites of the Ministry of Health, Ministry of External Relations, United Nations, and World Health Organization do not contain additional public information regarding a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support. [3, 4, 5, 6]

[1] Peru Construye. 2019. "Vizcarra inaugurates new COEN". [<https://peruconstruye.net/2019/07/19/vizcarra-inauguro-el-nuevo-centro-de-operaciones-de-emergencia-nacional-coen/>]. Accessed 14 December 2020.

[2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2004. "COEN Operations Manual". [<http://sinpad.indeci.gob.pe/UploadPortalSINPAD/MANUAL%20DE%20FUNCIONAMIENTO%20-%20COEN.pdf>]. Accessed 12 December 2020.

[3] United Nations. 2020. "Search results". [https://news.un.org/en/search/peru/field_news_topics/health-82]. Accessed 14 December 2020.

[4] World Health Organization. 2020. "Search results".

[<https://www.who.int/home/search?indexCatalogue=genericsearchindex1&searchQuery=peru%20funding%20epidemic&wordsMode=AllWords&healthtopic=undefined&country=undefined>]. Accessed 14 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[6] Ministry of External Relations (Ministerio de Relaciones Exteriores). 2020. "RR.EE.". [<https://www.gob.pe/rreee>]. Accessed 13 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

In Peru, there is public evidence that the country, in the past three years, has requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats; there is no public evidence that the country has provided other countries with financing or technical support to improve capacity to address epidemic threats. In 2018, the government of Peru requested more than US\$50m from the government of China for the construction of the new National Emergency Operations Center (COEN). [1] The upgraded COEN supports Peru's response efforts for all types of emergencies, including epidemics and pandemics. [2] The Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker shows that Peru received US\$27.87m in 2019, and US\$322.94m in 2020 to improve its own domestic capacity to address epidemic threats, including US\$1.77m for D.2 – Real Time Surveillance, US\$2.09m for D.1 – National Laboratory System, and US\$24.25m for P.3 – Antimicrobial Resistance. [8] The Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker does not list Peru as a funder during the past three years. [3] The websites of the Ministry of Health, Ministry of External Relations, United Nations, and World Health Organization do not contain additional public information regarding evidence that the country has provided other countries with financing or technical support to improve capacity to address

epidemic threats. [4, 5, 6, 7]

- [1] Peru Construye. 2018. "China will support construction of new operations center for INDECI in Lima". [https://peruconstruye.net/2018/11/16/china-apoyara-construccion-de-nuevo-centro-de-operaciones-del-indeci-en-lima/]. Accessed 14 December 2020.
- [2] National Institute of Civil Defense (Instituto Nacional de Defensa Civil). 2004. "COEN Operations Manual". [http://sinpad.indeci.gob.pe/UploadPortalSINPAD/MANUAL%20DE%20FUNCIONAMIENTO%20-%20COEN.pdf]. Accessed 12 December 2020.
- [3] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2020. "Peru Funder Profile". [https://tracking.ghscosting.org/details/1025/funder]. Accessed 14 December 2020.
- [4] World Health Organization. 2020. "Search results". [https://www.who.int/home/search?indexCatalogue=genericsearchindex1&searchQuery=peru%20funding%20epidemic&wordsMode=AllWords&healthtopic=undefined&country=undefined]. Accessed 14 December 2020.
- [5] Ministry of Health (Ministerio de Salud). 2020. "MINSA". [https://www.gob.pe/minsa/]. Accessed 9 December 2020.
- [6] Ministry of External Relations (Ministerio de Relaciones Exteriores). 2020. "RR.EE.". [https://www.gob.pe/rree]. Accessed 13 December 2020.
- [7] United Nations. 2020. "Search results". [https://news.un.org/en/search/peru/field_news_topics/health-82]. Accessed 14 December 2020.
- [8] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2021. "Peru Recipient Profile". [https://tracking.ghscosting.org/details/1025/recipient]. Accessed 25 April 2021.

5.5.4c

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

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

5.6.1a

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

Yes = 1 , No = 0

Current Year Score: 0

In Peru, there is insufficient public evidence that the government has 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. In terms of sharing of routine surveillance data, Peru made a public commitment to share technical data and research with its Andean neighbors via the Guayaquil Declaration. Article 1 of the declaration states that each country will transfer knowledge, technology, scientific evidence and social communication and information to its partners in order to combat the dengue virus. [1] The Andean Health Organization’s 2012-2014 Dengue Prevention and Control Roadmap commits Peru and other Andean countries to share national epidemiological surveillance data across borders to prevent and control the spread of dengue. [2] The websites of the Ministry of Health, the Ministry of Agricultural Development and Irrigation, the National Agricultural Health Service, the National Health Institute (INS) (including the national laboratory network), and National Council of Science, Technology and Technological Innovation do not contain additional information regarding 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. [3, 4, 5, 6, 7, 8]

[1] Organismo Andino de Salud – Convenio Hipólito Unánue. 2012. “DECLARACION DE MINISTROS DE SALUD ANDINOS ANTE EL ACTUAL PROBLEMA DEL DENGUE”.

[<https://www.orasconhu.org/sites/default/files/files/Declaratoria%20Guayaquil%20Dengue%2018%2005%2012b.pdf>]. Accessed 14 December 2020.

[2] Organismo Andino de Salud – Convenio Hipólito Unánue. 2012. “HOJA DE RUTA PARA LA PREVENCION Y EL CONTROL DEL DENGUE EN LOS PAISES ANDINOS 2012 - 2014”.

[[https://www.orasconhu.org/sites/default/files/files/Hoja%20de%20Ruta%20Dengue%20sep%202012\[1\].pdf](https://www.orasconhu.org/sites/default/files/files/Hoja%20de%20Ruta%20Dengue%20sep%202012[1].pdf)]. Accessed 14 December 2020.

[3] National Council of Science, Technology and Technological Innovation (Consejo Nacional de Ciencia, Tecnología e Innovación Tecnológica). 2020. “CONCYTEC”. [<https://www.gob.pe/concytec>]. Accessed 9 December 2020.

[4] Ministry of Agricultural Development and Irrigation (Ministerio de Desarrollo Agrario y Riego). 2020. “MIDAGRI”. [<https://www.gob.pe/midagri>]. Accessed 9 December 2020.

[5] Ministry of Health (Ministerio de Salud). 2020. “MINSA”. [<https://www.gob.pe/minsa/>]. Accessed 9 December 2020.

[6] National Agricultural Health Service (Servicio Nacional de Sanidad Agraria). 2020. “SENASA”. [<https://www.senasa.gob.pe/senasa/>]. Accessed 9 December 2020.

[7] National Institute of Health (Instituto Nacional de Salud). 2020. “INS”. [<https://web.ins.gob.pe/>]. Accessed 8 December 2020.

5.6.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no publicly available evidence that Peru has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. Information from the World Health Organization shows that Peru shares information regarding the influenza virus. [1, 2] Local and international media do not contain reports of non-sharing.

[1] World Health Organization. 2013. “Influenza virus activity in the world”.

[http://www.who.int/influenza/gisrs_laboratory/updates/summaryreport_20130902/en/]. Accessed 12 December 2020.

[2] World Health Organization. 2020. “Peru”. [<https://www.who.int/countries/per/>]. Accessed 12 December 2020.

5.6.1c

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

Yes = 0, No = 1

Current Year Score: 1

There is no publicly available evidence that Peru has not shared pandemic pathogen samples during an outbreak in the past two years. The World Health Organization does not mention that Peru has not shared samples during an outbreak, including samples related to the COVID-19 pandemic. [1] Local and international media do not contain reports of non-sharing by Peru, including samples related to the COVID-19 pandemic.

[1] World Health Organization. 2020. "Peru". [<https://www.who.int/countries/per/>]. Accessed 12 December 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 38

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: 0

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

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

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

Current Year Score: 1

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

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

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

Current Year Score: 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: 94.41

2018

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

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.62

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: 0.7

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 the World Bank data website, using data from the International Labour Organization's ILOSTAT database, in 2019 Peru's informal employment as a percentage of total non-agricultural employment was 60.3%. [1]

[1] World Bank. 2020. "Informal employment (% of total non-agricultural employment) - Peru".
[<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS?locations=PE>]. Accessed 15 November 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: 2

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.41

Latest available.

World Bank; Economist Impact calculations

6.3 INFRASTRUCTURE ADEQUACY

6.3.1 Adequacy of road network

6.3.1a

What is the risk that the road network will prove inadequate to meet needs?

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

Current Year Score: 2

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

What is the risk that air transport will prove inadequate to meet needs?

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

Current Year Score: 2

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 4

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 78.1

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: -1.27

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

What is the risk that the economy will suffer a major disruption owing to a natural disaster?

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

Current Year Score: 1

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 76.52

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: 302.7

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 8.39

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 9.6

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 19.7

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: 91.13

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 74.34

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: 480.03

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