

# Paraguay

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

<b>CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH POTENTIAL FOR INTERNATIONAL CONCERN</b>	<b>4</b>
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	7
1.3 Biosecurity	14
1.4 Biosafety	22
1.5 Dual-use research and culture of responsible science	24
1.6 Immunization	27
<b>CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN</b>	<b>28</b>
2.1 Laboratory systems strength and quality	28
2.2 Laboratory supply chains	31
2.3 Real-time surveillance and reporting	32
2.4 Surveillance data accessibility and transparency	35
2.5 Case-based investigation	40
2.6 Epidemiology workforce	43
<b>CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC</b>	<b>44</b>
3.1 Emergency preparedness and response planning	44
3.2 Exercising response plans	49
3.3 Emergency response operation	51
3.4 Linking public health and security authorities	54
3.5 Risk communications	55
3.6 Access to communications infrastructure	58

3.7 Trade and travel restrictions	59
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**CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 61**

4.1 Health capacity in clinics, hospitals, and community care centers	61
4.2 Supply chain for health system and healthcare workers	64
4.3 Medical countermeasures and personnel deployment	70
4.4 Healthcare access	71
4.5 Communications with healthcare workers during a public health emergency	73
4.6 Infection control practices and availability of equipment	74
4.7 Capacity to test and approve new medical countermeasures	75

**CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 77**

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	77
5.2 Cross-border agreements on public health and animal health emergency response	78
5.3 International commitments	80
5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	82
5.5 Financing	83
5.6 Commitment to sharing of genetic and biological data and specimens	87

**CATEGORY 6: OVERALL RISK ENVIRONMENT AND VULNERABILITY TO BIOLOGICAL THREATS 89**

6.1 Political and security risk	89
6.2 Socio-economic resilience	93
6.3 Infrastructure adequacy	95
6.4 Environmental risks	96
6.5 Public health vulnerabilities	97

## 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: 1**

There is evidence that Paraguay has drafted a national antimicrobial resistance (AMR) plan, but insufficient evidence that it covers surveillance, detection, and reporting of priority AMR pathogens. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) published the National Action Plan for Antimicrobial Resistance 2019–2023 (Plan de Acción Nacional de Resistencia Antimicrobiana 2019–2023) in May 2019 upon the passing of Resolution S.G. 163/2018 (Resolución S.G. 163/2018) [1]. However, there is insufficient evidence that the national AMR plan covers surveillance, detection, and reporting. Furthermore, the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), and the Central Laboratory of Public Health (Laboratorio Central de Salud Pública) have not published the draft of the national AMR plan [2, 3, 4, 5]. Moreover, the website of the World Health Organization (WHO) does not provide evidence that Paraguay's national AMR plan covers surveillance, detection, and reporting [6].

[1] Agencia de Información Paraguaya (Paraguayan Information Agency). "Paraguay has an Antimicrobial Resistance Plan (Paraguay ya cuenta con un plan de resistencia antimicrobiana)". [<https://www.ip.gov.py/ip/paraguay-ya-cuenta-con-un-plan-de-resistencia-antimicrobiana/>]. Accessed November 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed November 2020.

[3] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional)" [<http://www.mag.gov.py/>]. Accessed November 2020.

[4] Central Laboratory for Public Health. (Laboratorio Central de Salud Pública). 2018. [<https://www.mspbs.gov.py/lcsp>]. Accessed November 2020.

[5] World Health Organization (WHO). February 2016. "Library of National Action Plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en>]. Accessed November 2020.

##### 1.1.1b

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

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

**Current Year Score: 1**

There is evidence that Paraguay has a national laboratory system that tests for certain priority antimicrobial resistance (AMR) pathogens, but not all. According to the Pan American Health Organisation's Latin American Network for Surveillance of

Antimicrobial Resistance and the USAID South American Infectious Disease Initiative, the Department of Bacteriology of the Central Laboratory of Public Health tests for priority AMR pathogens [1,2]. It also co-ordinates the national network, which is constituted by the microbiology laboratories of three public hospitals, one social security hospital, three sanatoriums, and two private laboratories. The network began activities in 1999, conducting surveillance for three AMR pathogens, before expanding in the year 2000 to include surveillance for all 7+1 priority AMR pathogens. In addition to other AMR pathogens, the network conducts surveillance for *Salmonella* spp, *Shigella* spp, *S. Aureus*, *E. coli*, and *S. pneumoniae* in the community; and for *K. pneumoniae*, *S. Aureus*, and *E. coli* in hospitals. The report notes that while a point in time sample study for multidrug resistant tuberculosis was conducted in 2008, the country does not yet have a permanent monitoring system for drug-resistant tuberculosis [1,2]. Further information outlines the testing capabilities of Paraguay's sentinel system but does not provide insights on antimicrobial resistance testing capabilities. The draft of Resolution S.G. No. 190/2013 (Resolución S.G. No. 190/2013) and the National Guidance on Surveillance and Control of Diseases (Guía Nacional de Vigilancia y Control de Enfermedades) establishes that Paraguay's sentinel system can test for *K. pneumoniae*, *S. pneumoniae*, and *Salmonella* spp. However, it does not specify if this includes testing for resistant strains [3]. The sentinel system of Paraguay comprises eight hospitals, the National Institute of Respiratory and Environment Diseases (Instituto Nacional de Enfermedades Respiratorias y del Ambiente), and the Institute of Tropical Medicine (Instituto de Medicina Tropical) [4]. There is no further evidence available on the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) or the Central Laboratory of Public Health (Laboratorio Central de Salud Pública) regarding testing for AMR strains of *N. gonorrhoeae* or *Mycobacterium tuberculosis* [5,6].

[1] Pan American Health Organisation (PAHO). 2019. "Latin American Network for Surveillance of Antimicrobial Resistance (ReLAVRA)". [[https://www.paho.org/hq/index.php?option=com\\_content&view=article&id=13682:relavra-home&Itemid=42427&lang=es](https://www.paho.org/hq/index.php?option=com_content&view=article&id=13682:relavra-home&Itemid=42427&lang=es)]. January 2021.

[2] Pan American Health Organisation (PAHO); SAIDI. 2009. "Profile of Paraguay —Antimicrobial Resistance (Perfil de Paraguay - Resistencia Antimicrobiana)". [[https://www.paho.org/hq/dmdocuments/2009/Perfil\\_de\\_pais\\_Paraguay.pdf](https://www.paho.org/hq/dmdocuments/2009/Perfil_de_pais_Paraguay.pdf)]. Accessed January 2021.

[3] Fernandez, Dr. Antonio Barrios, Dr. Maria Teresa Barán, Dra. Maria Agueda Cabello Sarubbi, Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2015. "National Disease Surveillance and Control Guide (Guía Nacional de Vigilancia y Control de Enfermedades)". [<http://vigisalud.gov.py/files/guiaNacional/Guia-Vigilancia-2015.pdf>]. Accessed December 2020.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). General Directorate of Health Surveillance (Dirección General de Vigilancia de la Salud). March 2020. "Guide to Epidemiological and Laboratory Surveillance of Coronavirus Disease-19 (COVID-19) (Guía de vigilancia epidemiológica y de laboratorio de la Enfermedad por Coronavirus-19 (COVID-19))". [<https://www.mspbs.gov.py/dependencias/portal/adjunto/5231da-Guiadevigilanciaepidemiologica.pdf>]. Accessed November 2020.

[5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed January 2021.

[6] Central Laboratory of Public Health. [<https://www.mspbs.gov.py/lcsp>]. Accessed January 2021.

### 1.1.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay conducts environmental detection or surveillance activities for antimicrobial resistance (AMR) or AMR organisms. The websites of the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería),

the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), and the Ministry of Environment and Sustainable Development (Ministerio de Medio Ambiente y Desarrollo Sostenible) do not report legislation, regulation, or a national plan for the environmental detection or surveillance for AMR or AMR organisms [1, 2, 3]. Furthermore, the Food and Agriculture Organization (FAO) reports through its news site that Paraguay's government has recently drafted a National Integrated System for the Surveillance of the Antimicrobial Resistance on the Agri-food Supply Chain (Sistema Integrado Nacional de Monitoreo de la Resistencia Antimicrobiana en la Cadena Agroalimenticia), but the draft is not available on the website of the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) or the Ministry of Environment and Sustainable Development (Ministerio de Medio Ambiente y Desarrollo Sostenible) [1,3, 4].

[1] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional) [<http://www.mag.gov.py/>]" . Accessed November 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>] Accessed November 2020.

[3] Ministry of Environment and Sustainable Development (Ministerio de Medio Ambiente y Desarrollo Sostenible). "Main Page—Institutional (Página principal—institucional)". [<http://www.mades.gov.py/>] Accessed November 2020.

[4] Food and Agriculture Organization (FAO). September 2020. "Experts Shared Advances and Pending Assignments on Antimicrobial Resistance in Paraguay (Expertos compartieron avances y tareas pendientes sobre resistencia antimicrobiana en Paraguay)". [<http://www.fao.org/paraguay/noticias/detail-events/ru/c/1331550/>]. Accessed November 2020.

## 1.1.2 Antimicrobial control

### 1.1.2a

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

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

**Current Year Score: 1**

There is evidence of a drafted law and regulation in Paraguay that requires prescriptions for antibiotic use for humans, but there is also evidence of gaps in enforcement. Article 18 of Act No. 1.119 On Products for Health and Others (Ley No. 1.119 De Productos para la Salud y Otros) establishes as a general norm the requirement of prescriptions for selling drugs [1]. Furthermore, Article 1 of Resolution S.G. 0576 (Resolución S.G. 0576) establishes that antibiotic use requires prescription [2]. There is also evidence of gaps in enforcement due to problems in the implementation. According to the Pan American Health Organization, the implementation of the regulation faces challenges due to i) opposition from the pharma industry, ii) practitioners' unfamiliarity with the requisites of filling out the prescriptions, and iii) insufficient personnel to monitor the implementation of the policy [3, 4].

[1] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). "Law No. 1.119. 10 October 1997. Health and Other Products Law (Ley de Productos para la Salud y otros)".

[[http://www.cicad.oas.org/fortalecimiento\\_institucional/legislations/PDF/PY/ley\\_1119.pdf](http://www.cicad.oas.org/fortalecimiento_institucional/legislations/PDF/PY/ley_1119.pdf)]. Accessed November 2020.

[2] Legislative Branch, Ministry of Public Health, and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). 8 October 2018. "Resolution S.G.N number 0576 on the Compulsory Sale of Medicines that have Antibiotic Activity for Systemic Use, Under a Simple Filed Prescription (Resolución S.G.N número 0576 de venta obligatoria de medicamentos que tengan actividad antibiótica de uso sistémico, bajo receta simple archivada)".

[[https://www.mspbs.gov.py/dependencias/dnvs/adjunto/4dfdc2-](https://www.mspbs.gov.py/dependencias/dnvs/adjunto/4dfdc2-3.ResolucinS.G.N576.18Antibioticosrecetasimplearchivada.pdf)

3.ResolucinS.G.N576.18Antibioticosrecetasimplearchivada.pdf]. Accessed November 2018.

[3] Pan American Health Organization (PAHO), World Health Organization (WHO). August, 2020. "The Experience of Paraguay in the Control of the Prescription Sale of Antimicrobials (La experiencia de Paraguay en la fiscalización de la venta con receta

de antimicrobianos)." [https://www.paho.org/es/sistemas-servicios-salud/experiencia-paraguay-fiscalizacion-venta-con-receta-antimicrobianos] Accessed November 2020.

[4] Acosta-Ovando, Claudia Elizabeth, Romina Magalí Bael-Piris, Kimberly Saidee Bobadilla-Cousirat, Fátima Bañuelos-Gómez, Teresa Centurión, \*Carlos G. Adorno. "Knowledge and Practice of Recipe Regulations Simple Filed for the Prescription of Antibiotics from Systemic Use in Dentists in Asunción and Greater Asunción in 2019 (Conocimiento y práctica de la normativa de la receta simple archivada para la prescripción de antibióticos de uso sistémico en odontólogos de Asunción y Gran Asunción en el año 2019)". [http://scielo.iics.una.py/pdf/iics/v18n1/1812-9528-iics-18-01-5.pdf]. Accessed in November 2020.

### 1.1.2b

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

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

**Current Year Score: 1**

There is evidence of a drafted regulation in Paraguay that requires a prescription for antibiotic use for animals, but there is evidence of gaps in enforcement. Article 5 of of Resolution S.G. 0576 (Resolución S.G. 0576) establishes that veterinarians must prescribe antibiotics for the use on animals and must include "veterinarian use" as part of the prescription [1]. According to the Pan American Health Organization, the implementation of the regulation faces challenges due to i) opposition from the pharma industry, ii) errors in filling out prescriptions, and iii) insufficient personnel to monitor the implementation of the regulation [2].

[1] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). 8 October 2018. "Resolution S.G.N number 0576 on the compulsory sale of medicines that have antibiotic activity for systemic use, under a simple filed prescription. (Resolución S.G.N número 0576 de venta obligatoria de medicamentos que tengan actividad antibiótica de uso sistémico, bajo receta simple archivada).

[https://www.mspbs.gov.py/dependencias/dnvs/adjunto/4dfdc2-

3.ResolucinS.G.N576.18Antibioticosrecetasimplearchivada.pdf]. Accessed November 2018.

[2] Pan American Health Organization (PAHO), World Health Organization (WHO). August, 2020. "The Experience of Paraguay in the Control of the Prescription Sale of Antimicrobials (La experiencia de Paraguay en la fiscalización de la venta con receta de antimicrobianos)." [https://www.paho.org/es/sistemas-servicios-salud/experiencia-paraguay-fiscalizacion-venta-con-receta-antimicrobianos]. Accessed November 2020.

## 1.2 ZOO NOTIC DISEASE

### 1.2.1 National planning for zoonotic diseases/pathogens

#### 1.2.1a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has national plans that address zoonotic diseases. The Ministry of Agriculture and Livestock established the National Service of Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal, SENACSA), which is guided by several resolutions on animal health surveillance (rather than one specific zoonotic disease strategy). Overseen by the General Directorate for the Surveillance of Health, the program emphasizes the promotion, prevention, surveillance,

and control of zoonotic diseases through the improvement of animal health [1]. The SENACSA website outlines plans for surveillance and control of several zoonotic diseases, including avian influenza, rabies (with a special focus on bovine rabies), and brucellosis [1,2,3,4,5]. The Ministry of Public Health and Social Welfare also operates the National Program on Zoonotic Diseases and Anti-Rabies Center, but minimal information is available about the agency online [6]. Further, there is no evidence of a unified zoonotic disease strategy via the Ministry of Public Health and Social Welfare, Ministry of National Defense, Ministry of Agriculture and Livestock, Ministry of Research, the national laboratory system, or the National Health Institute of a single national law, plan, or equivalent document on zoonotic disease [7,8,9,10,11,12].

- [1] National Service of Animal Health and Quality. "Sanitary Situation (Situación Sanitaria)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/situacion-sanitaria>]. Accessed January 2021.
- [2] National Service of Animal Health and Quality. "Health Programs (Programas sanitarios)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios>]. Accessed February 2021.
- [3] National Service of Animal Health and Quality. "National Program for the Prevention and Surveillance of Avian Influenza (Programa Nacional de prevención y vigilancia de la Influenza Aviar)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/influenza-aviar>]. Accessed February 2021.
- [4] National Service of Animal Health and Quality. "National Program for the Control of Rabies in Susceptible Animals (Programa Nacional de Control de la Rabia en Animales Susceptibles)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/rabia- bovina-rb>]. Accessed February 2021.
- [5] National Service of Animal Health and Quality. "National Program for the Control and Eradication of Bovine Brucellosis (Programa Nacional de Control y Erradicación de la Brucelosis Bovina)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/brucelosis-bovina>]. Accessed February 2021.
- [6] Ministry of Public Health and Social Welfare. "Institutes and Programs (Institutos y programas)". [<https://www.mspps.gov.py/institutos-programas.html>]. Accessed January 2021.
- [7] Ministry of Public Health and Social Welfare. [<http://www.vigisalud.gov>]. Accessed January 2021.
- [8] Ministry of National Defense. [<http://www.mdn.gov.py>]. Accessed January 2021.
- [9] Ministry of Agriculture and Livestock. [<http://www.mag.gov.py>]. Accessed January 2021.
- [10] National Council for Science and Technology. [<http://www.conacyt.gov.py>]. Accessed January 2021.
- [11] Central Laboratory of Public Health. [<https://www.mspps.gov.py/lcsp>]. Accessed January 2021.
- [12] National Institute of Health. 2021. [<http://www.ins.gov.py>]. Accessed January 2021.

### 1.2.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence in Paraguay of plans that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. A series of documents guides strategy and policy on three zoonotic diseases: Resolution N° 2219/2015 (Resolución N° 2219/2015 ) establishes the National Program for the Control of Rabies (Programa Nacional de Control de la Rabia en Animales Susceptibles), Decree No. 18613/97 (Decreto No. 18613/97) the National Program for the Control and Eradication of Bovine Tuberculosis (Programa Nacional de Control y Erradicación de la Tuberculosis Bovina), and Decree No. 7426 (Decreto No. 7426) of the National Program for the Control and Eradication of Bovine Brucellosis (Programa Nacional de Control y Erradicación de la Brucelosis Bovina) [1,2,3]. However, the official documents are not available in the website of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), or the National Service for Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal); moreover, the information available is insufficient to

establish that the plans and programs address zoonotic spillover events from animals to humans [4,5,6].

- [1] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "National Program for the Control of Rabies in Susceptible Animals (Programa Nacional de Control de la Rabia en Animales Susceptibles)." [https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/rabia-bovina-rb]. Accessed November 2020.
- [2] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "National Program for the Control and Eradication of Bovine Tuberculosis (Programa Nacional de Control y Erradicación de la Tuberculosis Bovina)." [https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/tuberculosis-bovina-tb]. Accessed November 2020.
- [3] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "National Program for the Control and Eradication of Bovine Brucellosis (Programa Nacional de Control y Erradicación de la Brucelosis Bovina)" [https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/brucelosis-bovina]. Accessed November 2020. [4 ] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/index.php]. Accessed November 2020.
- [5] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional)" [http://www.mag.gov.py/]. Accessed November 2020.
- [6] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "Main Page—Institutional (Página principal—institucional)". [https://www.senacsa.gov.py/index.php] Accessed November 2020.

### 1.2.1c

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has regulations that account for the surveillance and control of multiple zoonotic pathogens of public health concern. The Ministry of Public Health and Social Welfare's National Program for the Control of Zoonoses and National Anti-Rabies Center oversees laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern; however, the website for the center is no longer active [1]. The Ministry of Agriculture and Livestock established the National Service of Animal Health (Quality Servicio Nacional de Calidad y Salud Animal, SENACSA), which is guided by several resolutions on animal health surveillance (rather than one specific zoonotic disease strategy). Overseen by the General Directorate for the Surveillance of Health, the program emphasizes the promotion, prevention, surveillance, and control of zoonotic diseases through the improvement of animal health [2]. The SENACSA website outlines plans for surveillance and control of several zoonotic diseases, including avian influenza, rabies (with a special focus on bovine rabies) and brucellosis [2,3,4,5].

- [1] Ministry of Public Health and Social Welfare. "Institutes and Programs (Institutos y programas)". [https://www.mspbs.gov.py/institutos-programas.html]. Accessed January 2021. [1] National Service of Animal Health and Quality. "Sanitary Situation (Situación Sanitaria)". [https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/situacion-sanitaria]. Accessed January 2021.
- [2] National Service of Animal Health and Quality. "Health Programs (Programas sanitarios)". [https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios]. Accessed February 2021.
- [3] National Service of Animal Health and Quality. "National Program for the Prevention and Surveillance of Avian Influenza (Programa Nacional de prevención y vigilancia de la Influenza Aviar)". [https://www.senacsa.gov.py/index.php/Temas-



pecuarios/sanidad-animal/programas-sanitarios/influenza-aviar]. Accessed February 2021.

[4] National Service of Animal Health and Quality. "National Program for the Control of Rabies in Susceptible Animals (Programa Nacional de Control de la Rabia en Animales Susceptibles)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/rabia- bovina-rb>]. Accessed February 2021.

[5] National Service of Animal Health and Quality. "National Program for the Control and Eradication of Bovine Brucellosis (Programa Nacional de Control y Erradicación de la Brucelosis Bovina)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/programas-sanitarios/brucelosis-bovina>]. Accessed February 2021.

### 1.2.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay has a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries. Although there is no evidence of a permanent agency, there is evidence of a committee that meets in the case of emergencies. The National Commission of Emergency Animal Sanitation (SINAESA), which falls under the National Service for Animal Quality and Health (Servicio Nacional de Calidad y Salud Animal), works across ministries with the aim of preventing, identifying, and eradicating zoonotic diseases. This commission includes representatives across eight ministries and governmental offices, including the Ministry of Agriculture and Livestock, the Viceministry of Livestock, the president of SENACSA, the president of the Rural Association of Paraguay, Ministry of the Interior, the Ministry of Health, the Ministry of National Defence, and the Ministry of Public Works and Communications. This cross-ministerial committee is only called into action as a response to the declaration of a sanitary emergency from the Executive Branch [1]. There is no further evidence on the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) and the Ministry of Agriculture and Cattle (Ministerio de Agricultura y Ganadería), which do not present official or anecdotal documents of evidence of joint staffing, funding, reporting, or other substantial operations by more than one ministry [1, 2,3].

[1] National Service of Animal Health and Quality. 2017. "Sanitary Emergencies (Emergencias Sanitarias)". [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/emergencias-sanitarias>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page —Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed November 2020.

[3] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page —Institutional (Página principal—institucional)". [<http://www.mag.gov.py/>]. Accessed November 2020.

## 1.2.2 Surveillance systems for zoonotic diseases/pathogens

### 1.2.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence in Paraguay of the existence of a national mechanism (either voluntary or mandatory) for owners of livestock to conduct and report on zoonotic disease surveillance to a central government agency. The surveillance

protocol of the National System for Health Surveillance and Control (Sistema Nacional de Vigilancia Epidemiológica) does not include active participation from the owners of livestock [1]. The only evidence of a reporting hotline available online is for one location—the municipality of La Asunción [2]. No information regarding a reporting system is available via the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Cattle (Ministerio de Agricultura y Ganadería), or the National Service for Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal). Furthermore, the news section of the foresaid agencies do not make any reference to a national mechanism of disease surveillance regarding reports for owners of livestock [3,4,5]. Further, Paraguay's national mechanism makes the reporting of most diseases voluntary through the Network of Epidemiological Surveillance, and the National Service for Animal Quality and Health (SENACSA) makes it mandatory by law to monitor and report on "diseases of obligatory notice." The country's National Guide for the Surveillance and Control of Disease (2015) lists the diseases of obligatory notice and outlines their specific surveillance mechanisms. However, it is evident that this reporting system is intended for laboratories to report to the central agency rather than serving as a system for individual livestock owners [6].

[1] Fernandez, Dr. Antonio Barrios, Dr. Maria Teresa Barán, Dra. María Agueda Cabello Sarubbi, Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2015. "National Disease Surveillance and Control Guide (Guía Nacional de Vigilancia y Control de Enfermedades)". [<http://vigisalud.gov.py/files/guiaNacional/Guia-Vigilancia-2015.pdf>]. Accessed November 2020.

[2] Municipal Government of Asunción (Gobierno Municipal de Asunción). "Which Agency to Contact for Complaints about the Possession of Wild Animals and Abandoned Animals? (A qué dependencia contactar para denuncias sobre tenencia de animales silvestres y animales abandonados?)". [<https://www.asuncion.gov.py/que-dependencia-contactar-para-denuncias-sobre-tenencia-de-animales-silvestres-y-animales-abandonados>]. Accessed November 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed November 2020.

[4] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional) [<http://www.mag.gov.py/>]. Accessed November 2020.

[5] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "Main Page—Institutional (Página principal—institucional)". [<https://www.senacsa.gov.py/index.php>]. Accessed November 2020.

[6] General Directorate for the Surveillance of Health. 2015. "National Guide for the Surveillance and Control of Disease (Guía Nacional de Vigilancia y Control de Enfermedades)". [<https://www.who.int/leishmaniasis/burden/Guia-Nacional-de-vigilancia-y-control-de-enfermedades-Paraguay.pdf>]. Accessed December 2020.

### 1.2.2b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that the zoonotic disease surveillance program in Paraguay protects the data generated for animals and their owners. Act No. 153/15 on the obligatory testimony of diseases (Ley No. 153/15 sobre "Declaración obligatoria de enfermedades") and the documents regulating it are not available on the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), or the National Service for Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal) [1,2,3]. Moreover, Articles 4, 5, 6, and 7 from Act No. 1682 on Private Information (Ley No. 1682 Que Reglamenta la Información de Carácter Privado) regulate the use of private information, particularly commercial information, but this is not conclusive about surveillance owned stock [4].

- [1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>] Accessed November 2020.
- [2] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional) [<http://www.mag.gov.py/>] Accessed November 2020.
- [3] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "Main Page—Institutional (Página principal—institucional)". [<https://www.senacsa.gov.py/index.php>]. Accessed November 2020.
- [4] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). 19 January 2001. Law No. 1682 on the Regulation of Private Information (Ley No. 1682 de reglamentación de la información de carácter privado). [<https://www.bacn.gov.py/leyes-paraguayas/1760/ley-n-1682--reglamenta-la-informacin-de-carcter-privado>]. Accessed November 2018.

### 1.2.2c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay conducts surveillance of zoonotic diseases in wildlife. The National Service Against Malaria (Servicio Nacional para la Erradicación del Paludismo) is responsible for the surveillance and control of diseases vectors of malaria, dengue, yellow fever, leishmaniasis, and schistosomiasis [1]. Nevertheless, its website or the website of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), or the National Service for Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal) does not provide evidence of surveillance in wildlife [2,3,4,5].

- [1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "The National Malaria Eradication Service (SENEPA)—Who Are We? ( El Servicio Nacional de Erradicación del Paludismo (SENEPA) - ¿quiénes somos)". [<https://www.mspbs.gov.py/senepa/somos.html>] Accessed November 2018.
- [2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "The National Malaria Eradication Service (SENEPA)—Objective and Mission ( El Servicio Nacional de Erradicación del Paludismo (SENEPA)—Objetivo y misión)". [<https://www.mspbs.gov.py/senepa>] Accessed November 2020.
- [3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>] Accessed November 2020.
- [4] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) "Main Page—Institutional (Página principal—institucional)". [<http://www.mag.gov.py/>] Accessed November 2020.
- [5] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "Main Page—Institutional (Página principal—institucional)". [<https://www.senacsa.gov.py/index.php>] Accessed November 2020.

### 1.2.3 International reporting of animal disease outbreaks

#### 1.2.3a

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

Yes = 1 , No = 0

**Current Year Score: 1**

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: 13.58**

2019

OIE WAHIS database

### 1.2.4b

**Number of veterinary para-professionals per 100,000 people**

Input number

**Current Year Score: 4.27**

2019

OIE WAHIS database

## 1.2.5 Private sector and zoonotic

### 1.2.5a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay has a mechanism for working with the private sector in controlling or responding to zoonoses. The Management System of Regional Offices (Sistema Informático de Gestión de Oficinas Regionales) under the National Service of Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal) is a centralized repository, which allows "rapid access to key information in relevant cases of health emergency". Moreover, the Management System of Regional Offices provides the government information from the private sector about vaccination and mortality of animals—especially but not exclusively, cattle [1]. This system manages properties, movements, livestock, stock and sales of vaccines, vaccination, traffic control, and serological sampling. Private-sector stakeholders are required to keep a Detail of Movement, which shows all the transactions that a producer makes, including purchases, sales, additions, deletions, and the total stock in the establishment [2]. The website of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), or the National Service for Animal Health and Quality (Servicio Nacional de Calidad y Salud Animal) does not provide any information in this regard [3,4,5].

- [1] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "The IT System for the Management of Regional Offices (El Sistema Informático de Gestión de Oficinas Regionales) [<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sigor>] Accessed November 2020.
- [2] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "The IT System for the Management of Regional Offices—SIGOR Portal (El Sistema Informático de Gestión de Oficinas Regionales—Portal SIGOR) [<https://www.sigor.gov.py/web/index.html>] Accessed November 2020.
- [3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main page—institutional (Página principal—institutional)". [<https://www.mspbs.gov.py/index.php>] Accessed November 2020.
- [4] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) "Main Page—Institutional (Página principal—institutional) [<http://www.mag.gov.py/>] Accessed November 2020.
- [5] National Service of Quality and Animal Health (Servicio Nacional de Calidad y Salud Animal). "Main Page—Institutional (Página principal—institutional)". [<https://www.senacsa.gov.py/index.php>] Accessed November 2020.

## 1.3 BIOSECURITY

### 1.3.1 Whole-of- government biosecurity systems

#### 1.3.1a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence in the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Verification Research, Training, and Information Centre (VERTIC) database, the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures, the Ministry of National Defense (Ministerio de Defensa Nacional), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), the National Council of Science and Technology (Consejo Nacional de Ciencia y Tecnología), the Central Laboratory of Public Health (Laboratorio Central de Salud Pública), or the National Health Institute (Instituto Nacional de Salud) that Paraguay has in place a record of the facilities in which especially dangerous pathogens and toxins are stored or processed [1,2,3,4,5,6,7,8]. Although Paraguay is a member of the BWC, there is no public evidence that it has submitted any Confidence Building Measures reports since 1995 [3]. Furthermore, Paraguay does mandate by law that especially dangerous pathogens and toxins must be registered, as Chapter Two of the country's Sanitary Code of 1980, specifically Article 190, states that all especially dangerous and toxic substances must be registered with the health ministry. However, it does not explicitly require the locations of the storage facilities to be registered, and it is also unclear how often the registry is updated or which specific pathogens are tracked [9].

- [1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2018. [<http://www.vigisalud.gov>]. Accessed November 2020.
- [2] Verification Research, Training, and Information Centre (VERTIC). "BWC Legislation Database" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed December 2020.
- [3] United Nations. 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.
- [4] Ministry of National Defence (Ministerio de la Defensa Nacional). 2018. [<http://www.mdn.gov.py>]. Accessed November 2018.

- [5] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). 2018. [<http://www.mag.gov.py>]. Accessed November 2020.
- [6] National Council for Science and Technology (Consejo Nacional de Ciencia y Tecnología). 2018. [<http://www.conacyt.gov.py>]. Accessed November 2018.
- [7] Central Laboratory for Public Health. (Laboratorio Central de Salud Pública) 2018. [<https://www.mspbs.gov.py/lcsp>]. Accessed November 2020.
- [8] National Institute of Health (Instituto Nacional de Salud). 2018. [<http://www.ins.gov.py>]. Accessed November 2018.
- [9] Republic of Paraguay (República de Paraguay). 1980. Law No. 836. "Sanitary Code (Codigo Sanitario)." [[http://www.who.int/fctc/reporting/Paraguay\\_annex8\\_health\\_act.pdf](http://www.who.int/fctc/reporting/Paraguay_annex8_health_act.pdf)]. Accessed November 2020.

### 1.3.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay has in place legislation and regulation related to biosecurity; moreover, there is no detailed evidence regarding the protection, control of, and accountability for high-consequence biological agents and toxins or information within laboratories to prevent unauthorized possession, loss, theft, misuse, diversion, or intentional release. Paraguay's central regulations related to biosecurity are outlined in the health ministry's Basic Laboratory Biosecurity Norms. Chapter 7.11 outlines location, design, and infrastructure for physical containment of dangerous pathogens. According to the manual, the physical space and environmental conditions of the laboratories are governed by the requirements established by the Central Laboratory of Public Health's Directorate on Registration, Authorization, and Control. Laboratory infrastructure is designed according to the degree of biosecurity risk of each laboratory. For example, for Level 2 Biosecurity (NBS-2) and above, laboratories must have security-enhanced doors to restrict entry if necessary, adequate windows for ventilation, and wire mesh to prevent the entry of insects. Biological security booths are required depending on the level of biosecurity, and annual certification of appropriate infrastructure is mandatory. Any planned construction, remodelling, or adaptation of any laboratory area must be communicated to the competent authority. More generally, the norms have a "biosafety / biosecurity checklist," Section C of which outlines four key elements for optimum security of possibly dangerous pathogens: a) restricted access to work areas; b) doors and windows can be closed securely; c) the transport of samples is carried out according to the recommendations; and d) there are sample location records [1]. However, it is unclear whether the guidance provided in the document is mandatory or consists instead of recommended best practice. There is no evidence of other regulations covering biosecurity requirements. Furthermore, Act No. 3361 On Residuals Generated in Health Establishments generically regulates different aspects related to biosecurity management. However, there is no evidence that Act No. 3361 addresses biosecurity in laboratories housing dangerous pathogens and instead focuses on the appropriate and safe management of biomedical waste in health facilities [2]. Moreover, there is no evidence on the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), and the Central Laboratory of Public Health (Laboratorio Central de Salud Pública), the Verification Research, Training and Information Centre (VERTIC) database, the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures, the Ministry of National Defense (Ministerio de Defensa Nacional), or the National Commission for the Prevention and Response to Biologic Emergencies (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas) of the regulation regarding the protection, control of, and accountability for biological agents, toxins, or information within laboratories [3,4,5,6,7,8,9].

- [1] Ministry of Public Health and Social Welfare. 2014. "Norms of Laboratory Biosecurity (Normas Basicas de Bioseguridad en el Laboratorio)". [<https://www.mspbs.gov.py/dependencias/lcsp/adjunto/2325fb-NormasBioseguridadsetiembre.pdf>]. Accessed February 2020.
- [2] Legislative Branch, Congress of the Paraguayan Nation (Poder Legislativo, Congreso de la Nación Paraguaya). Act No. 3361, November 19, 2007. "Law No. 3361 of Waste Generated in Health and Related Establishments (Ley No. 3361 de residuos generados en los establecimientos de salud y afines)". [<https://www.bacn.gov.py/leyes-paraguayas/3414/de-residuos-generados-en-los-establecimientos-de-salud-y-afines>]. Accessed November 2020.
- [3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>] Accessed November 2020.
- [4] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional) [<http://www.mag.gov.py/>] Accessed November 2020.
- [5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health (Laboratorio Central de Salud Pública)". [<https://www.mspbs.gov.py/lcsp>]. Accessed December 2020.
- [6] Verification Research, Training, and Information Centre (VERTIC). "BWC Legislation Database" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed December 2020.
- [7] United Nations. 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.
- [8] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)". [<http://www.mdn.gov.py/>]. Accessed December 2020.
- [9] National Emergency Secretariat (Secretaría de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

### 1.3.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay has an established agency responsible for the enforcement of biosecurity legislation and regulations. Although the Central Laboratory for Public Health's Directorate of Registration, Authorization, and Control (Dirección de Registro, Autorización y Control del Laboratorio Central) is given oversight of the health ministry's Basic Laboratory Biosecurity Norms (Normas Básicas de Bioseguridad en el Laboratorio), it is not clear if these are enforceable, mandatory requirements. The manual has guidance outlining norms for laboratory biosecurity, including having a "biosafety / biosecurity checklist." Section C of the manual outlines four key elements for optimum security of possibly dangerous pathogens: a) restricted access to work areas; b) doors and windows can be closed securely; c) the transport of samples is carried out according to the recommendations; and d) there are sample location records [1]. However, it is unclear whether the guidance provided in the document is mandatory or consists instead of recommended best practices. No further information is available via the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), and the Central Laboratory of Public Health (Laboratorio Central de Salud Pública), the Verification Research, Training, and Information Centre (VERTIC) database, the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures, the Ministry of National Defense (Ministerio de Defensa Nacional), or the National Commission for the Prevention and Response to Biologic Emergencies (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas) of the regulation regarding the protection, control of, and accountability for biological agents, toxins, or information within laboratories [2,3,4,5,6,7,8].

- [1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Norms of Laboratory Biosecurity (Normas Básicas de Bioseguridad en el Laboratorio)". [<https://www.mspbs.gov.py/dependencias/lcsp/adjunto/2325fb-NormasBioseguridadsetiembre.pdf>]. Accessed February 2020.
- [2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal - institucional)". [<https://www.mspbs.gov.py/index.php>] Accessed November 2020.
- [3] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) "Main Page—Institutional (Página principal - institucional)" [<http://www.mag.gov.py/>] Accessed November 2020.
- [4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health (Laboratorio Central de Salud Pública)". [<https://www.mspbs.gov.py/lcsp>]. Accessed December 2020.
- [5] Verification Research, Training, and Information Centre (VERTIC). "BWC Legislation Database" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/u/>]. Accessed December 2020.
- [6] United Nations. 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.
- [7] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal— institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.
- [8] National Emergency Secretariat (Secretaría de Emergencia Nacional). "Main Page—Institutional (Página principal— institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

### 1.3.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence through the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures, the Ministry of National Defence, or the Ministry of Public Health and Social Welfare (including in the latter's biosecurity manual), and the Verification Research, Training, and Information Centre (VERTIC) database that Paraguay has taken deliberate action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities [1,2,3,4,5]. Although Paraguay is party to the BWC, there is no public evidence that it has submitted any Confidence-Building Measures reports since 1995 [6]. Chapter Two, Article 190 of the country's Sanitary Code (1980) states that all especially dangerous pathogens and toxins must be registered with the health ministry. However, it does not explicitly require the locations of the storage facilities to be registered and no mention is made of consolidation efforts [7].

- [1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal— institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed November 2020.
- [2] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal— institucional)." [<http://www.mdn.gov.py/>]. Accessed November 2020.
- [3] Ministry of Agriculture and Cattle (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal— institucional)". [<http://www.mag.gov.py/>]. Accessed November 2020.
- [4] National Emergency Secretariat (Secretaría de Emergencia Nacional). "Main Page—Institutional (Página principal - institucional)". [<https://www.sen.gov.py/>]. Accessed November 2020.
- [5] Verification Research, Training, and Information Centre (VERTIC). "BWC Legislation Database" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/p/>]. Accessed December



2020.

[6] United Nations. 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.

[7] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 836, December 15, 1980. "Sanitary Code (Código Sanitario) [<https://www.bacn.gov.py/leyes-paraguayas/2399/ley-n-836-codigo-sanitario>]. Accessed November 2020.

### 1.3.1e

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence via the Ministry of Public Health and Social Welfare, National Health Institute, Central Laboratory of Public Health, Ministry of National Defence, or Ministry of Agriculture and Livestock that Paraguay has in-country capacity to conduct polymerase chain reaction-based (PCR-based) diagnostic testing for anthrax and/or Ebola [1,2,3,4,5]. The list of tests that the health ministry cites that it is capable of conducting does not include PCR for anthrax or Ebola. However, there is evidence that Paraguay has a laboratory that is capable of handling Ebola samples. In 2018, Paraguay opened a BSL-3 lab within the Central Laboratory of Public Health [5]. However, it is unclear if the laboratory has the capacity or equipment to conduct the anthrax and Ebola PCR-tests [6]. The Central Laboratory of Public Health document, called the "Implementation of the National Network of Laboratories for the Quality of Patient Service and Epidemiological Surveillance," demonstrates that Paraguay has the capacity to conduct bacterial PCR assays as well as PCR tests for respiratory tests, influenza A and B, yellow fever, dengue, and others; however, it does not specify whether it is capable of conducting PCR testing for anthrax and Ebola. However, the document appears to have been published in 2013 and may be out of date given the 2018 opening of the BSL-3 laboratory [7].

[1] Ministry of Public Health and Social Welfare. [<https://www.mspbs.gov.py/lcsp>]. Accessed January 2021.

[2] National Institute of Health. "Functions (Funciones)". [<http://www.ins.gov.py/funciones/>]. Accessed January 2021.

[3] Central Laboratory of Public Health. "Analysis and Realized Studies (Análisis y Estudios Realizados)".

[<https://www.mspbs.gov.py/lcsp/analisis-y-estudios-realizados.html>]. Accessed January 2021.

[4] Ministry of National Defense. "National Commission of Prevention and Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas)". [<http://www.mdn.gov.py/index.php/conapreb>]. Accessed January 2021.

[5] Ministry of Agriculture and Livestock. "Services (Servicios)". [<http://www.mag.gov.py/index.php/servicios>]. Accessed January 2021.

[6] Ministry of Public Health and Social Welfare. "Another Milestone in Public Health: Paraguay now has a Biosecurity III Laboratory (Otro hito en Salud Pública: Paraguay ya cuenta con su laboratorio de Bioseguridad III)".

[<https://www.mspbs.gov.py/portal/15235/otro-hito-en-salud-publica-paraguay-ya-cuenta-con-su-laboratorio-de-bioseguridad-iii.html>]. Accessed February 2021.

[7] Ministry of Public Health and Social Welfare. 2013. "Implementation of the National Network of Laboratories for the Quality of Patient Service and Epidemiological Surveillance (Implementación de la Red Nacional de Laboratorios para la calidad en la atención de los pacientes y la vigilancia epidemiológica)".

[<https://www.mspbs.gov.py/dependencias/lcsp/adjunto/f84665-EstructurafuncionaldelaboratoriosenlaRISS.pdf>]. Accessed January 2021.

## 1.3.2 Biosecurity training and practices

### 1.3.2a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay 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. Although Paraguay has a manual of Basic Norms for Biosafety in the Laboratory (Normas Básicas de Bioseguridad en el Laboratorio), developed by the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), which establishes a common biosafety framework for laboratories across the country, it does not make reference to any training [1]. The Central Laboratory for Public Health (Laboratorio Central de Salud Pública) developed a workshop in "Biological Risk Management" (Gestión de Riesgos Biológicos) in 2014, but there is no evidence that such workshop has been replicated [2]. Finally, the Ministry of National Defense (Ministerio de la Defensa Nacional), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), the Verification Research, Training, and Information Centre (VERTIC) database, the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures, and the National Emergency Secretariat (Secretaría de Emergencia Nacional) do not document requirements of biosecurity training [3,4,5,6,7,8]. Although Resolution No. 511/2016 of 2016 from the Ministry of Health (Approval of the Manual of Organization and Functions of the National Institute of Health, Dependent of the Ministry of Public Health and Social Welfare,) states that all health workers are to be trained at a national level by the curricula of the National Institute of Health, there is no specific mention of whether this includes laboratory workers or if biosecurity measures are a part of the curriculum [9].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2014. "Basic Norms for Biosafety in the Laboratory (Normas básicas de bioseguridad en el laboratorio)".

[<https://www.msps.gov.py/dependencias/lcsp/adjunto/2325fb-NormasBioseguridadsetiembre.pdf>]. Accessed December 2020.

[2] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). 2014. "Workshop in "Biological Risk Management (Curso- taller Gestión de Riesgos Biológicos)." [<http://portal.msps.gov.py/lcsp/curso-taller-gestion-de-riesgos-biologicos-2/amp/>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health (Laboratorio Central de Salud Pública)". [<https://www.msps.gov.py/lcsp>]. Accessed December 2020.

[4] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

[5] Ministry of Agriculture and Cattle (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional)". [<http://www.mag.gov.py/>]. Accessed December 2020.

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

[7] United Nations (UN). 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.

[8] National Emergency Secretariat (Secretaría de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[9] Resolution No. 511 of 2016. "Approving the Manual of Organization and Functions of the National Institute of Health (INS), Dependent of the Ministry of Public Health and Social Welfare (Por la Cual se Aprueba el Manual de Organización y Funciones del Instituto Nacional de Salud (INS), Dependiente del Ministerio de Salud Pública y Bienestar Social)". [<http://www.ins.gov.py/wp-content/uploads/2016/06/511-2016.pdf>]. Accessed January 2021.

### 1.3.3 Personnel vetting: regulating access to sensitive locations

#### 1.3.3a

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

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

**Current Year Score: 0**

There is no evidence that Paraguay has regulations or licensing conditions that 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 Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), the Ministry of National Defense (Ministerio de la Defensa Nacional), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), the National Emergency Secretariat (Secretaría de Emergencia Nacional), the Verification Research, Training, and Information Centre (VERTIC) database, and the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures do not document regulations or licensing conditions that 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 [1,2,3,4,5,6,7].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal - institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health (Laboratorio Central de Salud Pública)". [<https://www.mspbs.gov.py/lcsp>]. Accessed December 2020.

[3] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal— institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

[4] Ministry of Agriculture and Cattle (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal— institucional)." [<http://www.mag.gov.py/>]. Accessed December 2020.

[5] National Emergency Secretariat (Secretaría de Emergencia Nacional). "Main Page—Institutional (Página principal— institucional)." [<https://www.sen.gov.py/>]. Accessed December 2020.

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

[7] United Nations. 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.

### 1.3.4 Transportation security

#### 1.3.4a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has publicly available information on national regulations on the safe and secure transport of infectious substances (specifically including Categories A and B). Resolution No. 50/08 of the MERCOSUR Common Market Group (Resolución N° 50/08 del Grupo Mercado Común del MERCOSUR), signed by the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) of Paraguay, approves the "MERCOSUR Technical Regulation for the Transport of Infectious Substances and Biological Samples between the States Parties (Reglamento Técnico MERCOSUR para el Transporte de Sustancias Infecciosas y Muestras Biológicas entre los Estados Parte)". The regulation defines and includes specific guidance for infectious substances in Categories A and B. These include requirements for the sender, such as outlining that the sender shall pack, identify, and categorize the infectious substance or biological sample for the purposes provided for in the standard, following the biosafety indications established in the "Guidance on regulations relating to the transport of infectious substances" from the World Health Organization (WHO) 2007–2008. The receiver shall obtain the necessary authorizations from the national authorities for the entry into the States Parties of infectious substances and/or biological samples, informing the expected arrival of the material at least six hours in advance. Finally, the transporter shall not transport infectious material or biological samples in the same compartment in which passengers are transported [1]. However, these arrangements are limited to the market group and there is no evidence that it includes other countries as well.

[1] Organization of American States (OAS). "MERCOSUR Technical Regulation for the Transportation of Infectious Substances and Samples between State Parties (Reglamento Técnico MERCOSUR para Transporte de Sustancias Infecciosas y Muestras Biológicas Entre los Estados Parte)". 2008. [[http://www.sice.oas.org/Trade/MRCRSR/Resolutions/Res5008\\_s.pdf](http://www.sice.oas.org/Trade/MRCRSR/Resolutions/Res5008_s.pdf)]. Accessed December 2020.

### 1.3.5 Cross-border transfer and end-user screening

#### 1.3.5a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has regulations in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential.

Argentina, Brazil, Paraguay, and Uruguay are signatories to "Resolution No. 50/08 MERCOSUR Technical Regulation for the Transport of Infectious Substances and Biological Samples between the States Parties," which includes various measures for cross-border transfer checks and end-user screening [1, 2]. According to the MERCOSUR resolution, the relevant bodies for implementation are Argentina's Ministry of Health, Brazil's Ministry of Health/ANVISA, Paraguay's Ministry of Public Health and Social Welfare, and Uruguay's Ministry of Public Health [2]. The Resolution includes infectious substances in Categories A and B, crops, biological samples, and genetically modified organisms (GMOs) in its definition of infectious substances [2].

This Resolution places responsibilities on senders, receivers, and the relevant health bodies. Specifically, senders are required to organize a written approval from the receiving institution or organization in advance, determine appropriate transportation including mode of transportation and the most direct route, acquire customs and sanitary clearances from relevant agencies, notify recipients of procedures to be carried out in advance, and follow the WHO "Guide on regulations relating to the transport of infectious substances" for packaging and labelling [2]. The recipient is also required to obtain necessary authorizations for entry into state, provide the sender with necessary documentation, and notify the sender of received materials. Both the sender and the receiver are also mandated to get the relevant health authority in the countries to inspect the respective export and import materials [2]. Required documentation as part of this Resolution includes "commercial shipping/invoice list that includes the recipient's address, number of packages, detail of content, weight and value (if any)" as part of its end-user screening procedures [2].

Paraguay incorporated this Resolution in its national laws under Decree No. 2,337 of 06/26/09. [1]

[1] MERCOSUR. 28 November 2008. "MERCOSUR/GMC/RES. No. 50/08: MERCOSUR Technical Regulation for the Transport of Infectious Substances and Biological Samples between the States Parties—Regulations Details".

[<https://normas.mercosur.int/public/normativas/277>]. Accessed 1 June 2021.

[2] MERCOSUR. 28 November 2008. "(Resolution 50/2008): MERCOSUR Technical Regulation for the Transport of Infectious Substances and Biological Samples between the States Parties (REPEAL OF RES. GMC No. 25/00)".

[[https://normas.mercosur.int/simfiles/normativas/4072\\_RES\\_050-2008\\_ES\\_RTM%20TranspSubst%20Infecciosas.pdf](https://normas.mercosur.int/simfiles/normativas/4072_RES_050-2008_ES_RTM%20TranspSubst%20Infecciosas.pdf)]. Accessed 1 June 2021.

## 1.4 BIOSAFETY

### 1.4.1 Whole-of-government biosafety systems

#### 1.4.1a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has biosafety legislation in place. The country's biosafety legislation, Law No. 4659 of July 2012, on Implementation of Safety Procedures and Risk Prevention Mechanisms for Health Professionals and Patients (Ley no. 4659 Que implementa procedimientos de seguridad y mecanismos de prevención de riesgos para los profesionales de la salud y pacientes), is established by the national congress with the purpose of establishing "safety procedures and prevention mechanisms for health professionals and patients in the event of accidents with a biological risk, as well as to guarantee the safety of the use of medical devices, biological materials, and the equipment of individual protection in public and private health centres and establishments in the country" [1]. The legislation primarily covers healthcare workers and does not specifically mention laboratory workers. The law covers employer responsibilities, including providing pertinent information and training on the use of medical devices, sharp materials, and personal protective equipment (PPE); the storage, maintenance, cleaning, disinfection, and repair of PPE; establishing the necessary mechanisms and infrastructure for the disposal of medical waste and equipment; and developing and implementing an accident risk prevention plan, among other tasks. Although Paraguay is party to the United Nations (UN) Biological Weapons Convention, there is no public evidence that is has submitted any Confidence Building Measures reports since 1995 [2].

[1] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). Law No. 4659, July 30, 2012. "Law No. 4659 | Implements Safety Procedures and Prevention Mechanisms for Health Professionals and Patients in the Event of Accidents with Biological Risk (Ley No. 4659 | Implementa procedimientos de seguridad y mecanismos de prevención para profesionales de la Salud y Pacientes ante accidentes con riesgo biológico)". [<https://www.bacn.gov.py/leyes-paraguayas/3882/ley-n-4659--implementa-procedimientos-de-seguridad-y-mecanismos-de-prevencion-de-riesgos-para-los-profesionales-de-la-salud-y-pacientes>]. Accessed December 2020.

[2] Dr. Fernández, Antonio Barrios, Dr. María Teresa Barán Wasilchuk, Dr. Gustavo A. Chamorro Cortesi, Dra. María Regina Codas, Dra. Zenaida de Aquino, Dra. Angélica Oviedo, Dra. Sonia Ortigoza de Fleitas, Lic. Azucena Melgarejo Sanabria, Dr. Gustavo A. Chamorro Cortesi. Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). September 2014. "Basic Standards of Biosafety in the Laboratory (Normas Básicas de Bioseguridad en el Laboratorio)". [<https://www.mspps.gov.py/dependencias/lcsp/adjunto/2325fb-NormasBioseguridadsetiembre.pdf>] Accessed December 2020.

### 1.4.1b

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

Yes = 1, No = 0

**Current Year Score: 1**

There is an established agency in Paraguay responsible for the enforcement of biosafety legislation and regulation. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) is the responsible agency for the enforcement of biosafety regulations, according to Act No. 4659 (Ley No. 4659) Implementation of Safety Procedures and Risk Prevention Mechanisms for Health Professionals and Patients (Implementa Procedimientos de Seguridad y Mecanismos para los Profesionales de la Salud y los Pacientes). Specifically, the Act elaborates that the health ministry, in accordance with the legislation, may organize appropriate verification of the security features of medical devices and personal protective equipment (PPE), along with compliance with Articles 4, 5, 6, and 7 of the Act, and collect samples of the products for safety analysis. According to Article 10, failure to comply with the general duties regulated by this Law may result in temporary suspension during the period necessary to carry out different inspections, security checks, or assessments. According to Article 11, the Ministry of Health shall establish co-operation and co-ordination mechanisms to guarantee the distribution of safe equipment, medical devices, materials and personal protection equipment [1].

[1] Republic of Paraguay (República de Paraguay). Law No. 4659 (Ley No. 4659). 30 July 2012. "Implementing Safety Procedures and Risk Prevention Mechanisms for Healthcare Professionals and Patients (Implementa Procedimientos de Seguridad y Mecanismos de Prevención de Riesgos para los Profesionales de la Salud y Pacientes)". [<http://www.bacn.gov.py/leyes-paraguayas/3882/ley-n-4659--implementa-procedimientos-de-seguridad-y-mecanismos-de-prevencion-de-riesgos-para-los-profesionales-de-la-salud-y-pacientes>]. Accessed December 2020.

## 1.4.2 Biosafety training and practices

### 1.4.2a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay requires biosafety training using a standardized approach for personnel working in facilities housing or working with especially dangerous pathogens. Although Paraguay has a manual of Basic Norms for Biosafety in the Laboratory (Normas Básicas de Bioseguridad en el Laboratorio), developed by the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), which establishes a common biosafety framework for laboratories across the country, it does not make reference to any training [1]. There is similarly insufficient evidence of a standardized training approach via the Ministry of Public Health and Social Welfare, the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures, the Ministry of Agriculture and Livestock, the National Council for Science and Technology, the Central Laboratory of Public Health, or the National Institute of Health [2,3,4,5,6,7]. Although Resolution No. 511/2016 of 2016 from the Ministry of Health (Approval of the Manual of Organization and Functions of the National Institute of Health, Dependent of the Ministry of Public Health and Social Welfare) states that all health workers are to be trained at a national level by the curricula of the National Institute of Health, there is no specific mention of whether this includes laboratory workers or if biosafety measures are a part of the curriculum [8].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2014. "Basic Norms for Biosafety in the Laboratory (Normas básicas de bioseguridad en el laboratorio)". [<https://www.mspps.gov.py/dependencias/lcsp/adjunto/2325fb-NormasBioseguridadsetiembre.pdf>]. Accessed December 2020.

[2] Central Laboratory for Public Health (Laboratorio Central de Salud Pública. 2014. "Workshop in "Biological Risk Management" (Curso- taller Gestión de Riesgos Biológicos)."[<http://portal.mspps.gov.py/lcsp/curso-taller-gestion-de-riesgos-biologicos-2/amp/>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare. [<http://www.vigisalud.gov>]. Accessed January 2021.

[3] United Nations (UN). "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed January 2021.

[4] Ministry of Agriculture and Livestock. [<http://www.mag.gov.py>]. Accessed January 2021.

[5] National Council for Science and Technology. [<http://www.conacyt.gov.py>]. Accessed January 2021.

[6] Central Laboratory of Public Health. [<https://www.mspps.gov.py/lcsp>]. Accessed January 2021.

[7] National Institute of Health. [<http://www.ins.gov.py>]. Accessed January 2021.

[8] Resolution No. 511 of 2016. "Approving the Manual of Organization and Functions of the National Institute of Health (INS), Dependent of the Ministry of Public Health and Social Welfare (Por la Cual se Aprueba el Manual de Organización y Funciones del Instituto Nacional de Salud (INS), Dependiente del Ministerio de Salud Pública y Bienestar Social)". [<http://www.ins.gov.py/wp-content/uploads/2016/06/511-2016.pdf>]. Accessed January 2021.

## 1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

#### 1.5.1a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has conducted an assessment of dual-use research regarding dangerous pathogens, toxins, and pathogens with pandemic potential in the country. The National Policy on Research for Health, which covers the need for epidemiological investigations to support epidemiological surveillance in the different programs of the Ministry of

Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), does not mention dual-use research [1]. The Central Public Health Laboratory has a Biosafety Level 3 Laboratory, but there is no evidence of a review of ongoing dual-use research [2,3]. The Ministry of National Defense (Ministerio de la Defensa Nacional), the Verification Research, Training, and Information Centre (VERTIC) database, and the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures do not document or publish information related to dual-use research with dangerous pathogens, toxins, and pathogens with pandemic potential [4,5,6].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 26 February 2020. "BSL 3: The Laboratory Trained to Analyze COVID-19 (BSL 3: el Laboratorio capacitado para analizar COVID 19)".

[<https://www.mspbs.gov.py/porta/20467/bsl-3-el-laboratorio-capacitado-para-analizar-covid-19.html> ]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2010. "National Policy on Research for Health (Política Nacional de Investigación para la Salud)".

[[http://www.cepep.org.py/archivos/POLITICA\\_INVEST\\_SALUD\\_070710.pdf](http://www.cepep.org.py/archivos/POLITICA_INVEST_SALUD_070710.pdf)]. Accessed December 2020.

[3] Public Health Review (Revista de Salud Pública). December 2019. "Prevalence of Pathogens Causing Acute Diarrheal Disease in the Metropolitan Area of Asunción and Central (Prevalencia de patógenos causantes de enfermedad diarreica aguda en el área Metropolitana de Asunción y Central)". [[http://scielo.iics.una.py/scielo.php?script=sci\\_arttext&pid=S2307-33492019000200041&lng=es&nrm=iso&tIng=es](http://scielo.iics.una.py/scielo.php?script=sci_arttext&pid=S2307-33492019000200041&lng=es&nrm=iso&tIng=es)]. Accessed December 2020.

[4] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)". [<http://www.mdn.gov.py/> ]. Accessed December 2020.

[5] Verification Research, Training, and Information Centre (VERTIC). "BWC Legislation Database"

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

[6] United Nations (UN). 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.

### 1.5.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence of legislation or regulation requiring oversight of research with especially dangerous pathogens. In Title III of the Health Code in the section entitled "On Support Actions for Health," it is established that the Ministry of Public Health and Social Welfare is the body in charge of promoting and conducting research aimed at a better knowledge of health-related factors. Article 138 recognizes that the Ministry will grant authorization to laboratories and research centers to isolate and preserve highly dangerous pathogens, exclusively for research purposes in health sciences, and will require strict security measures and control them to protect people [1]. However, there is no mention of oversight for dual-use research in the aforementioned legislation. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of National Defense (Ministerio de la Defensa Nacional), the Verification Research, Training, and Information Centre (VERTIC) database, and the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures do not document or publish regulations requiring oversight of dangerous pathogens [2,3,4,5].

[1] Republic of Paraguay. 1980. Law No. 836. "Sanitary Code (Codigo Sanitario)."

[[http://www.who.int/fctc/reporting/Paraguay\\_annex8\\_health\\_act.pdf](http://www.who.int/fctc/reporting/Paraguay_annex8_health_act.pdf)]. Accessed November 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional



(Página principal - institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[3] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal— institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

[4] Verification Research, Training and Information Centre (VERTIC). "BWC Legislation Database"

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

2020. [5 ]United Nations (UN). 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.

### 1.5.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay has an agency responsible for oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research. Article 138 of the Health Code (Código Sanitario) from the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) states that the Ministry of Health will grant authorization to laboratories and research centers to isolate and preserve highly dangerous pathogens, exclusively for research purposes in health sciences and will require strict security measures and will control them to protect people [1]. However, it does not mention dual-use research. The Committee on Ethical Research (Comité de Ética en Investigación (CEI)), which is responsible for overseeing research and evaluating and approving research proposals, makes no mention of oversight of dual-use research within the scope of its activities [2]. The Ministry of National Defense (Ministerio de la Defensa Nacional), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), the Verification Research, Training, and Information Centre (VERTIC) database, and the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures do not document or publish information related to an agency responsible for the oversight of research with especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research [3,4,5,6].

[1] Republic of Paraguay (República de Paraguay). 1980. Law No. 836. "Sanitary Code (Código Sanitario)."

[[http://www.who.int/fctc/reporting/Paraguay\\_annex8\\_health\\_act.pdf](http://www.who.int/fctc/reporting/Paraguay_annex8_health_act.pdf)]. Accessed November 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2018. "CEI Regulation (Reglamento CEI)". [<https://www.mspbs.gov.py/lcsp/protocolos-evaluados.html>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health (Laboratorio Central de Salud Pública)". [<https://www.mspbs.gov.py/lcsp>]. Accessed December 2020.

[4] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal— institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

[5] Verification Research, Training, and Information Centre (VERTIC). "BWC Legislation Database"

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

[6] United Nations (UN). 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed November 2020.

## 1.5.2 Screening guidance for providers of genetic material

### 1.5.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of a regulation or legislation in Paraguay that requires the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold. Act No. 2309 (Ley No. 2309), which approves the Cartagena Protocol on Biosafety of the Convention on Biological Diversity, includes a statement on in vitro nucleic acid techniques, including deoxyribonucleic acid (DNA). However there is no mention of a requirement for screening of synthesized DNA [1]. The Ministry of National Defense (Ministerio de la Defensa Nacional), the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Verification Research, Training, and Information Centre (VERTIC) database, and the United Nations (UN) Biological Weapons Convention (BWC) Confidence Building Measures do not document or publish information related to regulations requiring the screening of synthesized DNA (deoxyribonucleic acid) against lists of known pathogens and toxins before it is sold [2,3,4,5].

[1] Legislative Branch, Congress of the Paraguayan Nation (Poder Legislativo, Congreso de la Nación Paraguaya). Act No. 2309, December 18, 2003. "Act No. 2309 | Approves the Cartagena Protocol on Biosafety of the Convention on Biological Diversity (Ley No. 2309 | Aprueba el Protocolo de Cartagena sobre Seguridad de la Biotecnología del Convenio sobre la Diversidad Biológica). [<https://www.bacn.gov.py/leyes-paraguayas/4982/ley-n-2309-aprueba-el-protocolo-de-cartagena-sobre-seguridad-de-la-biotecnologia-del-convenio-sobre-la-diversidad-biologica>]. Accessed November 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[3] National Directorate of Transport. "Main Page—Institutional (Página principal—institucional). [<http://www.dinatran.gov.py/>]. Accessed December 2020.

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

[5] United Nations (UN). 2019. "Confidence Building Measures". [<https://bwc-ecbm.unog.ch/state/paraguay>]. Accessed December 2020.

## 1.6 IMMUNIZATION

### 1.6.1 Vaccination rates

#### 1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 1

2019

World Health Organization

### 1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

### 2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

#### 2.1.1 Laboratory testing for detection of priority diseases

##### 2.1.1a

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

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

Current Year Score: 0

There is insufficient evidence via the Ministry of Public Health and Social Welfare, National Institute of Health, Central Laboratory of Public Health, Ministry of Agriculture and Livestock, and the Ministry of National Defence that the Central Laboratory of Public Health has the capacity to conduct diagnostic tests for more than three of the ten WHO-defined core tests [1,2,3,4,5]. According to the Ministry of Health's Implementation Plan of the National Network of Laboratories for the Quality of Patient Service and Epidemiological Surveillance, the national laboratory system has the capacity to conduct polymerase chain reaction (PCR) testing for the Influenza virus; virus culture for poliovirus, and microscopy for mycobacterium tuberculosis [6]. There is no publicly available evidence on Paraguay's four country-specific tests.

[1] Ministry of Public Health and Social Welfare. 2021. [<https://www.mspbs.gov.py>]. Accessed January 2021.

[2] National Institute of Health. 2018. [<http://www.ins.gov.py>]. Accessed January 2021

[3] Central Laboratory of Public Health. 2021. [<https://www.mspbs.gov.py/lcsp>]. Accessed January 2021.

[4] Ministry of National Defence. 2021. "National Commission for the Prevention and Response to Biological Emergencies (Comision Nacional de Prevencion a Respuestas y Emergencias Biologicas)". [<http://www.mdn.gov.py/index.php/conapreb>]. Accessed January 2021.

[5] Ministry of Agriculture and Livestock. 2021. [<http://www.mag.gov.py>]. Accessed Accessed January 2021.

[6] Ministry of Public Health and Social Welfare. "Implementation of the National Network of Laboratories for the Quality of Patient Service and Epidemiological Surveillance (Implementación de la Red Nacional de Laboratorios para la calidad en la atención de los pacientes y la vigilancia epidemiológica)". [<https://www.mspbs.gov.py/dependencias/lcsp/adjunto/f84665->

EstructurafuncionaldelaboratoriosenlaRISS.pdf]. Accessed January 2021.

### 2.1.1b

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

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

**Current Year Score: 1**

There is evidence that Paraguay has in place a plan, strategy, or similar document for conducting testing during a public health emergency; however, there is insufficient evidence that includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing. The General Directorate for Health Surveillance under the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) is responsible for the National System for Health Surveillance [1]. In response to COVID-19, in April 2020, the Ministry of Public Health and Social Welfare drafted The National Plan for the Response to Coronavirus (COVID-19) (Plan de Respuesta Nacional al Eventual Ingreso del Coronavirus (COVID-19)). The plan includes a section on epidemiological and laboratory surveillance, which notes that the country will create SARS-CoV-2 units within the national system to allow for testing for the disease. The plan also outlines five main objectives for testing: i) To detect an early introduction of the virus in the country (imported or local cases); ii) investigate in a timely manner and delay the dispersal in the national territory; iii) provide information to describe the epidemiological characteristics and risk factors of SARS-CoV-2 cases in Paraguay; iv) monitor the course of the Pandemic through the Syndromic Surveillance by weekly reports; and v) evaluate the parameters of Transmissibility, Severity, and Impact using the platform established in the Sentinel Surveillance [2]. Beyond this plan, there is no evidence that the Ministry or the General Directorate have drafted a plan for conducting testing for a future public health emergency.

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main-Institutional Page of the General Directorate of Health Surveillance (Página principal—institucional de la Dirección General de Vigilancia de la Salud). [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[2] National Emergency Ministry (Secretaria de Emergencia Nacional). 11 March 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))." [<https://www.msps.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed December, 2020.

## 2.1.2 Laboratory quality systems

### 2.1.2a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that a national laboratory that serves as a reference facility that is accredited. The Central Laboratory for Public Health (Laboratorio Central de Salud Pública) is a diagnostic reference laboratory and research institution under the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). To guarantee the quality of the analysis results in the different areas, the institution has implemented a Quality Assurance

System consisting of an Internal Quality Control Program and participates in more than 14 External Quality Assessment Programs led by Reference Institutions regionally and worldwide through its different areas [1]. However, there is no mention of what accreditations the Central Laboratory possesses. Moreover, Paraguay's National Accreditation Organ (ONA), a dependency of the National Commission of Science and Technology (Consejo Nacional de Ciencia y Tecnología), is a full member of the International Laboratory Accreditation Cooperative (ILAC). Although the ONA has accredited several of Paraguay's laboratories, there is no mention of the Central Laboratory of Public Health, which acts as the country's reference facility [2].

[1] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Who We Are Quiénes Somos—Institutional page (Página Institucional)". [<https://www.mspbs.gov.py/lcsp/quienes-somos.html>]. Accessed December 2020.

[2] National Council of Science and Technology (Consejo Nacional de Ciencia y Tecnología). 2019. "Testing Laboratories (Laboratorios de Ensayos)". [<http://www.conacyt.gov.py/laboratorios-de-ensayos>]. Accessed December 2020.

### 2.1.2b

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that the Central Laboratory of Paraguay (Laboratorio Central de Salud Pública) is a national laboratory that serves as a reference facility that is subject to external quality assurance review. Resolution No. 230/99 entrusts The Central Laboratory for Public Health (Laboratorio Central de Salud Pública) as "being the reference facility of all the laboratories for clinical analysis and public health under the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social" [1]. Moreover, the Central Laboratory is subject to 14 external quality assurance reviews through the External Quality Assessment Program (PEEC), which currently include six areas on which it is reviewed: haematology, immunology, parasitology, clinical chemistry, continuing education, and virology. However, the external reviewing agencies of the PEEC are not publicly listed [2]. Finally, Paraguay's National Accreditation Organ (ONA), a dependency of the National Commission of Science and Technology, is a full member of the International Laboratory Accreditation Cooperative (ILAC). ILAC is the international organization for accreditation bodies operating in accordance with ISO/IEC 17011 and involved in the accreditation of conformity assessment bodies including calibration laboratories (using ISO/IEC 17025), testing laboratories (using ISO/IEC 17025), medical testing laboratories (using ISO/IEC 15189), and inspection bodies (using ISO/IEC 17020) [3].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2012. "Central Laboratory of Public Health. Directorate of Records, Qualification and Control (Laboratorio Central de Salud Pública. Dirección de Registros, Habilitación y Control)". [<https://www.mspbs.gov.py/dependencias/lcsp/adjunto/63051f-NormasTecnicasRes179pag1.pdf>]. Accessed December 2020.

[2] Central Laboratory for Public Health (Laboratorio Central de Salud Publica). 2018. "Organizational Structure (Estructura Organizacional)". [<https://www.mspbs.gov.py/lcsp/quienes-somos.html>]. Accessed December 2020.

[3] International Laboratory Accreditation Cooperative. 2019. "ILAC MRA Signatory Contact Details". [<https://ilac.org/signatory-detail/?id=52>]. Accessed January 2021.

## 2.2 LABORATORY SUPPLY CHAINS

### 2.2.1 Specimen referral and transport system

#### 2.2.1a

**Is there a nationwide specimen transport system?**

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has a nationwide specimen transport system. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), and the General Directorate for Surveillance in Health (Dirección General de Vigilancia en Salud) do not document a nationwide specimen transport system [1,2,3,4]. Both Act No. 3361 (Ley No.3361) of November 2007 on Waste Generated in Health and Related Establishments and the Central Laboratory of Public Health's Manual on Biosecurity Norms detail requirements for the transportation of specimens. However, neither Act No. 3361 nor the Central Laboratory's biosecurity manual include specific mention of a system for transport, either public or private [5,6].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.msps.gov.py/index.php>]. Accessed December 2020.

[2] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) "Main Page—Institutional (Página principal—institucional) [<http://www.mag.gov.py/>] Accessed November 2020.

[3] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main institutional page (Página Institucional). [<http://vigisalud.gov.py/>]. Accessed December 2020

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main-institutional page of the General Directorate of Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud). [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[5] Republic of Paraguay (República de Paraguay). Act No. 3361 of November 2007. "Of Waste Generated in Health and Related Establishments (De Residuos Generados en los Establecimientos de Salud y Afines". [<http://www.bacn.gov.py/leyes-paraguayas/3414/de-residuos-generados-en-los-establecimientos-de-salud-y-afines>]. Accessed December 2020.

[6] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2014. "Basic Norms of Laboratory Biosecurity (Normas Basicas de Bioseguridad en el Laboratorio)". [<https://www.msps.gov.py/dependencias/lcsp/adjunto/2325fb-NormasBioseguridadsetiembre.pdf>]. Accessed December 2020.

### 2.2.2 Laboratory cooperation and coordination

#### 2.2.2a

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

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

**Current Year Score: 0**

There is no evidence of a plan to rapidly authorize or license laboratories to supplement the capacity to scale-up testing during an outbreak in Paraguay. Nevertheless, Paraguay was the first country in the Americas region to receive 250,000 antigen tests for the detection of SARS-CoV-2, through the PAHO/World Health Organization (WHO) Strategic Fund and and

from that, in their National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2), the country noted that it should establish diagnostic tests in the country through Laboratory Surveillance. However, there is no evidence in the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), and the General Directorate for Surveillance in Health (Dirección General de Vigilancia en Salud), which refers to a plan to scale-up testing during an outbreak, even in the current pandemic of COVID 19 [3][4][5].

[1] Pan American Health Organization (PAHO), World Health Organization (WHO). 30 October 2020. "250,000 Rapid Tests to Detect COVID-19 Arrive in Paraguay (Llegan a Paraguay 250 mil pruebas rápidas para detectar COVID-19)".

[<https://www.paho.org/es/noticias/30-10-2020-llegan-paraguay-250-mil-pruebas-rapidas-para-detectar-covid-19>]. Accessed December 2020.

[2] National Emergency Ministry (Secretaria de Emergencia Nacional). 11 March 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))".

[<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed 3 December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page —Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Institutional Page (Página Institucional)". [<http://vigisalud.gov.py/>]. Accessed December 2020.

[5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Institutional Page of the General Directorate of Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

## 2.3 REAL-TIME SURVEILLANCE AND REPORTING

### 2.3.1 Indicator and event-based surveillance and reporting systems

#### 2.3.1a

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

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

**Current Year Score: 1**

Although there is evidence that Paraguay is conducting ongoing event-based surveillance and analysis for infectious disease, there is insufficient evidence that data is analyzed on a daily basis. The Directorate for Alerts and Response (Dirección de Alerta y Respuesta) under the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) is responsible for ongoing event-based surveillance and analysis for infectious disease. The Directorate is also responsible for developing and coordinating mechanisms to process and verify rumors [1]. According to the National Guidance on Surveillance and Control of Diseases 2015 (Guía Nacional de Vigilancia y Control de Enfermedades, 2015), the event-based surveillance is the responsibility of the Notifier Unit (Unidad Notificadora) at the Local Level; the Regional Level of Surveillance is responsible of evaluating the behavior of local events and of notifying unusual events. Moreover, the tools used in Paraguay for events-based surveillance are a weekly consolidated spreadsheet for clinical surveillance; a weekly consolidated form of laboratory surveillance; a form for specific notifications/cases; a form of specific surveillance; and an specific format for diseases outbreaks [2]. The National System for Epidemiologic Surveillance (Sistema Nacional de Vigilancia

Epidemiológica) has the ability to analyze data, but there is no information on whether it is conducted on a daily basis [2].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main-Institutional Page of the General Directorate of Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[2] Dr. Antonio Barrios Fernandez, Dr. Maria Teresa Barán, Dra. Maria Agueda Cabello Sarubbi, Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2015. "National Disease Surveillance and Control Guide (Guía Nacional de Vigilancia y Control de Enfermedades)". [<http://vigisalud.gov.py/files/guiaNacional/Guia-Vigilancia-2015.pdf>]. Accessed December 2020.

### 2.3.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no available evidence that the country reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. According to the WHO, the last time Paraguay reported a PHEIC, was an outbreak of the Zika virus infection in December 2015 [1]. The General Directorate for Health Surveillance (Dirección General de Vigilancia de la Salud) is responsible for the National System for Health Surveillance (Sistema Nacional de Vigilancia de la Salud) in Paraguay [2]. The Directorate publishes an Epidemic Yearbook, but the last update was in 2018 [3]. Finally, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) has not documented or published evidence of a PHEIC within the past two years, including for Covid-19 [3].

[1] World Health Organization (WHO). 2015. "Archive Per Year". [<https://www.who.int/csr/don/archive/year/2015/en/>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), (Directorate General for Health Surveillance). Dirección General de Vigilancia de la Salud. "Annual Reports (Reportes Anuales)". [[http://www.vigisalud.gov.py/page/#vista\\_boletines\\_anuales.html](http://www.vigisalud.gov.py/page/#vista_boletines_anuales.html)] Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

## 2.3.2 Interoperable, interconnected, electronic real-time reporting systems

### 2.3.2a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Government of Paraguay operates an electronic reporting surveillance system at both the national and the sub-national levels. The government operates a central electronic reporting surveillance system at the national and sub-national levels in addition to various electronic reporting surveillance systems on specific topics. The National Network of Epidemiological Surveillance functions at the local, regional, and national levels [1]. The central system is the Computer System of the General Directorate of Health Surveillance (SIDGVS) [2]. This is a computing application component of the Surveillance System of the National Health Information System (SINAIS) and is aimed at collecting data to record and store



information about mandatory notifications and their characteristics for statistical and surveillance purposes. Beyond the SIDGVS, the government also employs the PAI Infovac system for records of vaccination coverage and notification of diseases detected by the Expanded Program of Immunizations [3]. The government also operates the Expert System of the National Program for the Control of Tuberculosis (SEPNACOTU) and the Expert System of the National Program to Combat AIDS (SEPRONASIDA) [4,5]. The purpose of the above systems is to record and store information about patients, laboratory data, treatments, and monitoring, feeding into other existing systems, and establishing information mechanisms so that it is continuously updated to provide real-time information.

[1] Ministry of Health and Social Welfare. "National Network of Epidemiological Surveillance (Red Nacional de Vigilancia Epidemiológica)." [<http://dgv.mspps.gov.py/>]. Accessed January 2021.

[2] Ministry of Health and Social Welfare. "Computer System of the Directorate for Health Surveillance (Sistema Informático de la Dirección General de Vigilancia de la Salud)." [<https://sidgvs.mspps.gov.py/>]. Accessed January 2021.

[3] Ministry of Health and Social Welfare. 2018. "Informatic System PAI Web (Sistema Informático PAI Web)". [<https://paiinfovacparaguay.mspps.gov.py/>]. Accessed January 2021.

[4] Ministry of Health and Social Welfare. 2018. "Expert System of the National Tuberculosis Control Program (Sistema Experto del Programa Nacional de Control de la Tuberculosis)". [<https://sepnc.mspps.gov.py/>]. Accessed January 2021.

[5] Ministry of Health and Social Welfare. 2018. "Expert System of the National AIDS/HIV Control Program (Sistema Experto del Programa Nacional de Control de VIH/SIDA/ITS)". [<https://sepronasida.mspps.gov.py/>]. Accessed January 2021.

### 2.3.2b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence via the Ministry of Public Health and Social Welfare, the Central Laboratory of Public Health or the National Institute of Health that the government's central electronic reporting surveillance system collects ongoing or real-time laboratory data [1,2,3,4,5,6,7]. Although there is evidence of an electronic health surveillance network and a laboratory data network, it is unclear whether the systems are connected or that they share data in real-time. The central system for health surveillance is the Computer System of the General Directorate of Health Surveillance (SIDGVS), a computing application component of the Surveillance System of the National Health Information System (SINAIS), and is aimed at collecting data to record and store information about mandatory notifications and their characteristics for statistical and surveillance purposes. Data is shared publicly on a weekly basis [4]. The Central Laboratory of Public Health operates a laboratory system across the country, including 17 regional laboratories as well as district and specialized hospital laboratories. However, it is not clear if data from the Central Laboratory of Public Health is connected with SINAIS [2]. Beyond the SIDGVS, the government also employs the PAI Infovac system for records of vaccination coverage and notification of diseases detected by the Expanded Program of Immunizations [5]. Moreover, the government also operates the Expert System of the National Program for the Control of Tuberculosis (SEPNACOTU) and the Expert System of the National Program to Combat AIDS (SEPRONASIDA) [6,7].

[1] Ministry of Public Health and Social Welfare. [<https://www.mspps.gov.py/portal>]. Accessed January 2021.

[2] Central Laboratory of Public Health. [<https://www.mspps.gov.py/lcsp>]. Accessed January 2021.

[3] National Institute of Health. [<http://www.ins.gov.py>]. Accessed January 2021.

[4] General Directorate for Health Surveillance. "SIDGVS". [<http://sidgvs.mspps.gov.py>]. Accessed January 2021.

[5] General Directorate for Health Surveillance. "Weekly Epidemiological Bulletin (Boletín Epidemiológico)". [[http://www.vigisalud.gov.py/boletin\\_epidemiologico](http://www.vigisalud.gov.py/boletin_epidemiologico)]. Accessed January 2021..

[6] General Directorate for Health Surveillance. "SEPNACOTU". [<https://sepnc.mspps.gov.py>]. Accessed January 2021.

[7] General Directorate for Health Surveillance. "Systems Portal (Sistemas Portal)". [https://www.mspbs.gov.py/portal/sistemas.html]. Accessed January 2021.

## 2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

### 2.4.1 Coverage and use of electronic health records

#### 2.4.1a

##### Are electronic health records commonly in use?

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

**Current Year Score: 1**

There is evidence that electronic health records (EHRs) are in use in Paraguay; however, there is insufficient evidence to prove that they are commonly in use. According to a 2015 World Health Organization (WHO) study, 50%–75% of primary care facilities used EHR, 25%–50% of secondary facilities used EHR, and less than 25% of tertiary care facilities used EHR at that time. However, there is no further information on the prevalence of EHR in country [1]. Moreover, the Institutional Strategic Plan from the Ministry of Public Health and Social Welfare 2019–2023 (Plan Estratégico Institucional del Ministerio de Salud Pública y Bienestar Social 2019–2023) has, as one of its objectives to "install and implement the electronic health record of patients for at least 30% of health institutions across the country by 2030" [2]. As such, there is evidence that although EHRs exist in Paraguay, they are not yet commonly in use throughout the country.

[1] World Health Organization (WHO). 2016. "Paraguay". [http://www.who.int/goe/publications/atlas/2015/pry.pdf]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Institutional Strategic Plan (Plan Estratégico Institucional del Ministerio de Salud Pública y Bienestar Social 2019–2023)". [https://www.mspbs.gov.py/dependencias/portal/adjunto/c5fbf6-PlanEstrategicoInstitucionalPEI20192023.pdf]. Accessed December 2020.

#### 2.4.1b

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that suggests that Paraguay's public health system has access to the electronic health records (EHRs) of individual in their country. A 2015 World Health Organization (WHO) report on EHRs does not mention that Paraguay's Public Health System has access to EHRs [1]. Moreover, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), and the National Institute of Health (Instituto Nacional de Salud) do not mention or publish information related to the public health sector having access to electronic medical records [2,3,4].

[1] World Health Organization (WHO). 2016. "Paraguay". [http://www.who.int/goe/publications/atlas/2015/pry.pdf]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[3] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Institutional Page (Página Institucional). [http://vigisalud.gov.py/]. Accessed December 2020

[4] National Health Institute (Instituto Nacional de Salud). "Main Page—Institutional (Página Institucional)". [http://www.ins.gov.py/]. Accessed December 2020.

### 2.4.1c

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has data standards to ensure that data is comparable. In 2010, Paraguay drafted Resolution S.G. 527 (Resolución S.G. 527) in order to standardize the filing of health records throughout the country [1]. The health records followed agreements within Mercado Común del Sur (MERCOSUR) regarding the strengthening of the health system among its members. The Health Records Handbook (Manual de Normas y Procedimientos del Expediente Clínico) mandates that the health network in Paraguay—including national, regional, district, and local levels—must comply with data standards provided by the health records with the objective, among others, of "standardizing health records and avoiding parallel information systems." Moreover, the Health Records Handbook establishes the specific elements that all health records are required to include: a) cover the identity of the person; b) clinical file with the clinical, socioeconomic, and habits background, as well as health tests of the person; and c) clinical history of the person [2].

[1] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 527, August 2010. "Resolution No. 527 by Which the Clinical Record to be used in the Management of Health Services is Created (Resolución 527, by which the clinical record to be used in the management of health services is created)".

[http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/06/Resolucion\_2010\_527.pdf]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2010. "Medical Records (Reporte Clínico)". [http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/01/Manual\_Expediente\_Clinico.pdf].

Accessed December 2020.

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

### 2.4.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay has mechanisms for animal, human, and wildlife surveillance to share data. There is evidence of public data sharing; data for human surveillance is published in the Weekly Epidemiological Bulletin (Boletín Epidemiológico Semanal) and data for animal health is shared through the annual Epidemic Yearbook (Anuario Epidemiológico). However, there is insufficient evidence that data is shared between ministries specifically [2,3]. Finally, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Central Laboratory for Public Health (Laboratorio Central de Salud Pública), the One Health Initiative and the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) do not document or publish evidence of mechanisms for animal, human, and wildlife surveillance to share data [4,5,6]. The website for the National Animal Health Emergency System (SINAESA) or a committee

that activates during times of zoonotic disease emergencies does not have information on cross-ministerial data sharing [7].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Directorate General for Health Surveillance (Dirección General de Vigilancia de la Salud). 10 October 2020. "Weekly Epidemiological Bulletin SE 1 a la SE 44 (29-12-2018 al 31-10-2020) (Boletín Epidemiológico Semanal SE 1 a la SE 44 (29-12-2018 al 31-10-2020))".

[[http://www.vigisalud.gov.py/files/boletines/SE44\\_2020\\_Boletin.pdf](http://www.vigisalud.gov.py/files/boletines/SE44_2020_Boletin.pdf)]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2018. "Epidemiological Yearbook, Paraguay, 2018. (Anuario Epidemiológico, Paraguay, 2018.)".

[[http://www.vigisalud.gov.py/files/boletines\\_anuales/16\\_2018\\_BoletinAnual.pdf](http://www.vigisalud.gov.py/files/boletines_anuales/16_2018_BoletinAnual.pdf)]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Institutional Page (Página Institucional).

[<http://vigisalud.gov.py/>]. Accessed December 2020.

[5] World Health Organization (WHO). 2017. "One Health". [<https://www.who.int/news-room/q-a-detail/one-health>].

Accessed December 2020.

[6] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional)". [<http://www.mag.gov.py/>]. Accessed November 2020.

[7] National Service of Animal Health and Quality. "Health Emergencies (Emergencias Sanitarias)".

[<https://www.senacsa.gov.py/index.php/Temas-pecuarios/sanidad-animal/emergencias-sanitarias>]. Accessed January 2021.

## 2.4.3 Transparency of surveillance data

### 2.4.3a

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

Yes = 1, No = 0

**Current Year Score: 1**

Paraguay makes de-identified health surveillance data on infectious diseases publicly available via weekly bulletins on government websites. The Weekly Epidemiological Bulletin (Boletín Epidemiológico Semanal) is the official document that publishes the events under surveillance. The Directorate updates its epidemiological bulletin on a weekly basis to ensure the collection of dynamic data on notifiable diseases and other infectious diseases of interest, such as dengue, chikungunya, malaria and Zika. Based on "Resolution S.G. No. 190/2013 (Resolución S.G. No. 190/2013), which regulates Art. 28 and Art. 36" of Act No. 836/80 of the Health Code (Código Sanitario) and International Health Regulations 2005 (IHR 2005) under the World Health Organization (WHO) related to events subject to epidemiological surveillance [1,2,3,4]. The bulletin is accessible through the Ministry's webpage—as of January 2021, the last available data was January 2021 [5].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main-Institutional Page of the General Directorate of Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud). [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Directorate General for Health Surveillance (Dirección General de Vigilancia de la Salud). 31 October 2020. "Weekly Epidemiological Bulletin SE 1 a la SE 44 (29-12-2018 al 31-10-2020) (Boletín Epidemiológico Semanal SE 1 a la SE 44 (29-12-2018 al 31-10-2020))".

[[http://www.vigisalud.gov.py/files/boletines/SE44\\_2020\\_Boletin.pdf](http://www.vigisalud.gov.py/files/boletines/SE44_2020_Boletin.pdf)]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Directorate General for Health Surveillance (Dirección General de Vigilancia de la Salud). 24 October 2020. "Weekly Epidemiological Bulletin SE 1 a la

SE 43 (29-12-2018 al 24-10-2020)) (Boletín Epidemiológico Semanal SE 1 a la SE 43 (29-12-2018 al 24-10-2020)).

[[http://www.vigisalud.gov.py/files/boletines/SE43\\_2020\\_Boletin.pdf](http://www.vigisalud.gov.py/files/boletines/SE43_2020_Boletin.pdf)]. Accessed December 2020.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Directorate General for Health Surveillance (Dirección General de Vigilancia de la Salud). 17 October 2020. "Weekly Epidemiological Bulletin SE 1 a la SE 42 (29-12-2018 al 17-10-2020) (Boletín Epidemiológico Semanal SE 1 a la SE 42 (29-12-2018 al 17-10-2020)).

[[http://www.vigisalud.gov.py/files/boletines/SE42\\_2020\\_Boletin.pdf](http://www.vigisalud.gov.py/files/boletines/SE42_2020_Boletin.pdf)]. Accessed December 2020.

[5] General Directorate for Health Surveillance (Dirección General de Vigilancia en salud). 2021. "Epidemiological Updates (Actualizaciones Epidemiológicas)". [<http://www.vigisalud.gov.py/webdgv/>]. Accessed January 2021.

### 2.4.3b

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

Yes = 1 , No = 0

**Current Year Score: 1**

Paraguay makes de-identified COVID-19 surveillance data available via daily reports on government websites. The website of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). The data includes daily cases; confirmed, active, and diseased cases; as well as granular data such as the geographical and sociodemographic distribution of de-identified COVID-19 cases [1].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). December 5, 2020.

"Reports—COVID 19 (Reportes—COVID 19)". [<https://www.mspbs.gov.py/reporte-covid19.html>]. Accessed December 2020.

## 2.4.4 Ethical considerations during surveillance

### 2.4.4a

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

Yes = 1 , No = 0

**Current Year Score: 1**

Paraguay has drafted a regulation that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. Article 4 of Act No.1682 on Regulations on Private Information, from 2001, regulates the use of private data and prohibits the sharing of sensitive personal data, including identifiable health information [1]. According to a 2016 World Health Organization (WHO) report, Paraguay's legal framework surrounding eHealth includes the protection of privacy for personally identifiable data of individuals, irrespective of whether it is in paper or digital format. The country also legally protects the privacy of individuals health-related data held in electronic health records [2]. Moreover, according to the Norms and Procedural Manual for Health Records (Manual de Normas y Procedimientos del Expediente Clínico, 2012), the hospitals and health facilities are responsible for filing the health records in their own general archive. It must be noted that health records are confidential and can only be accessed by third parties (including the government) upon judicial or scientific justifications. Furthermore, the government is granted access only to statistics related to the health records, which are to be provided by the public and private health facilities [3,4].

[1] Republic of Paraguay. Law No. 1682 of 2001. "Regulating Private Information (Que Reglamenta la Informacion de Caracter Privado)". [<https://www.bacn.gov.py/leyes-paraguayas/1760/ley-n-1682-reglamenta-la-informacion-de-caracter-privado>].

Accessed January 2021..

[2] World Health Organisation (WHO). "Paraguay". [<http://www.who.int/goe/publications/atlas/2015/pry.pdf>]. Accessed January 2021.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2010. "Medical Records (Reporte Clínico)". [[http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/01/Manual\\_Expediente\\_Clinico.pdf](http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/01/Manual_Expediente_Clinico.pdf)]. Accessed January 2021.

[4] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 527, August 2010. "Resolution No. 527 by Which the Clinical Record to be used in the Management of Health Services is Created (Resolución 527, by which the clinical record to be used in the management of health services is created)". [[http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/06/Resolucion\\_2010\\_527.pdf](http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/06/Resolucion_2010_527.pdf)]. Accessed December 2020.

### 2.4.4b

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has legislation and/or regulations for safeguarding the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, include mention of protections from cyber attacks. In Paraguay, health records are confidential and can only be accessed by third parties (including the government) upon judicial or scientific justifications [1]. Moreover, in April 2017, Paraguay drafted Decree No. 7052 for the creation of the National Plan on Cybersecurity (Plan Nacional de Ciberseguridad), which is intended, among other goals, to strengthen confidentiality and data privacy. Finally, the Ministry of Public Health and Social Welfare has a mandated Directorate of Information Security, which is responsible for regulation concerning prevention of and response to electronic security incidents. Its responsibilities focus on implementing and sustaining a system of protection, control, and monitoring of the technological infrastructure of the health ministry. This includes an intrusion, detection, and prevention system for the Central Level Data Centre and network infrastructure, along with a system for the measurement of data centre infrastructure performance [3].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2010. "Medical Records (Reporte Clínico)". [[http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/01/Manual\\_Expediente\\_Clinico.pdf](http://portal.mspbs.gov.py/digies/wp-content/uploads/2012/01/Manual_Expediente_Clinico.pdf)]. Accessed December 2020.

[2] General Directorate of Technology and Communication Technologies (Dirección General de Seguridad Informática). 2020. "Directorate for Information Security (Direccion de Seguridad Informática)". [<https://www.mspbs.gov.py/dgtic/dsi.html>]. Accessed December 2020.

## 2.4.5 International data sharing

### 2.4.5a

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

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

**Current Year Score: 2**

There is evidence that Paraguay has made commitments via a cooperative agreements to share surveillance data during a public health emergency with other countries in the region for more than one disease. Since 2017, MERCOSUR countries including Paraguay agreed upon The Integral Strategy of Management for Vectors (Estrategia de Gestión Integrada (EGI— vectores)), which was drafted in order to fight regional diseases such as dengue, Zika virus, and chikungunya. The strategy includes provisions for sharing data during public health emergencies [1]. Moreover, in the context of the fight against COVID-19, a decree was signed by the regional MERCOSUR Health Ministers, including the Ministry of Paraguay, further committing to share surveillance information with their neighboring countries for COVID-19 and other diseases such as dengue and measles. The decree includes considerations such as requiring countries to notify their counterparts of a detected case within 24 hours of their identification and establishing a mechanism for communication and coordination for surveillance and follow-up of cases [2].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 10 January 2016. Integrated Management Strategy Focuses on the Coordination of Vector Control (Estrategia de Gestión Integrada se enfoca en la coordinación de la lucha vectorial). [<https://www.mspbs.gov.py/portal/7587/estrategia-de-gestion-integrada-se-enfoca-en-la-coordinacion-de-la-lucha-vectorial.html>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 19 February 2020. Monitoring and Blocking Mechanisms for a Safer Mercosur (Mecanismos de vigilancia y bloqueo para un Mercosur más seguro). [<https://www.mspbs.gov.py/portal/20435/mecanismos-de-vigilancia-y-bloqueo-para-un-mercosur-mas-seguro.html>]. Accessed December 2020.

## 2.5 CASE-BASED INVESTIGATION

### 2.5.1 Case investigation and contact tracing

#### 2.5.1a

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

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

**Current Year Score: 0**

There is no evidence of a national system in Paraguay 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 either future or active public health emergencies. According to the Guidance for the Epidemiological Surveillance of Coronavirus-19 (Guía de Vigilancia Epidemiológica de Coronavirus-19), Paraguay has built capacities to implement contact tracing. As noted in the document, there is a protocol at the field level to coordinate contract tracing [1]. However, there is insufficient evidence in the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) and the Central Laboratory of Public Health (Laboratorio Central de Salud Pública) that suggests that there is a national system 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 either future or active public health emergencies [2,3,4].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Guide for Epidemiological Surveillance and Laboratory of Disease by Coronavirus-19 (COVID-19) (Guía De Vigilancia Epidemiológica Y Laboratorio De

Enfermedad Por Coronavirus-19 (COVID-19)".

[http://www.vigisalud.gov.py/files/slider/BOLETIN\_Guia%20de%20Vigilancia%20Coronavirus.pdf]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[3] The Central Laboratory of Public Health (Laboratorio Central de Salud Pública). "Main Page—Institutional (Página principal - institucional)". [https://www.mspbs.gov.py/lcsp]. Accessed November 2020.

[4] National System for Health Surveillance (Sistema Nacional de Vigilancia). "Main Page—Institutional (Página principal—institucional)". [http://www.vigisalud.gov.py/page/#vista\_boletines\_covid19.html]"

### 2.5.1b

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and/or medical attention. According to Decree 1.860/50 (Decreto 1.860/50), the Institute of Social Welfare (Instituto de Previsión Social) supports convalescents via a subsidy amounting at least 50% of their salary [1,2]. However, there is no evidence that Paraguay provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and/or medical attention on the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) and the Central Laboratory of Public Health (Laboratorio Central de Salud Pública) [3,4].

[1] Institute of Social Security. "Medical Leave Issued in the IPS Health Network (Reposos médicos expedidos en la red sanitaria del IPS)". [https://portal.ips.gov.py/sistemas/ipsportal/contenido.php?c=219]. Accessed December 2020.

[2] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Decree-Law No. 18071, 1 December 1950. [https://oig.cepal.org/sites/default/files/1950\_ley1860\_pry.pdf]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[4] The Central Laboratory of Public Health (Laboratorio Central de Salud Pública). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/lcsp]. Accessed November 2020.

### 2.5.1c

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay makes available de-identified data on contact tracing efforts for COVID-19 via daily reports. The website of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) dedicated to COVID-19 includes detailed information on confirmed cases and deaths broken down by day, location, sex, and age. There is also information on testing and calls to the national hotline, but no publicly available information on monitoring



for contact tracing efforts [1]. However, according to the Guidance for the Epidemiological Surveillance of Coronavirus-19 (Guía de Vigilancia Epidemiológica de Coronavirus-19), Paraguay has built capacities to implement contact tracing. As noted in the document, there is a protocol at the field level to coordinate contract tracing [2].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "COVID Reports (Reportes COVID)". [<https://www.mspbs.gov.py/reporte-covid19.html>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Guide for Epidemiological Surveillance and Laboratory of Disease by Coronavirus-19 (COVID-19) (Guía De Vigilancia Epidemiológica Y Laboratorio De Enfermedad Por Coronavirus-19 (COVID-19))".

[[http://www.vigisalud.gov.py/files/slider/BOLETIN\\_Guia%20de%20Vigilancia%20Coronavirus.pdf](http://www.vigisalud.gov.py/files/slider/BOLETIN_Guia%20de%20Vigilancia%20Coronavirus.pdf)]. Accessed December 2020.

## 2.5.2 Point of entry management

### 2.5.2a

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has a 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 future or active public health emergencies. Although there is a cooperative agreement in place specifically for COVID-19, there is insufficient evidence that it includes procedures for how to trace and quarantine contacts of international travelers. The Sanitary Procedure for Entry and Exit of People through Land-based Border Crossings is an agreement among the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the General Directorate of Health Surveillance (Dirección General de Vigilancia de la Salud y el Gobierno Nacional), and the National Government (Gobierno Nacional) [1]. However, there is no evidence of a mechanism that includes the identification of cases identified at the border. Finally, there is no evidence in the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the General Directorate of Migration (Dirección General de Migraciones), and the National Institute of Health (Instituto Nacional de Salud) of any cooperative agreement outside the COVID-19 context to identify suspected and potential cases in international travelers and trace and quarantine their contacts in the event of future or active public health emergencies [2,3,4].

[1] General Directorate of Migration (Dirección General de Migraciones). "Sanitary Procedure for Entry and Exit of People through the Land-based Border Crossings". [<https://www.mspbs.gov.py/dependencias/portal/adjunto/0a7e3c-IngresoyegresoPasosFronterizos.pdf>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[3] General Directorate of Migration (Dirección General de Migraciones). "Security and Immigration Control (Seguridad y control migratorio)".

[<http://www.migraciones.gov.py/index.php/noticias/topic/12/seguridad%20y%20control%20migratorio>]. Accessed December 2020.

[4] National Health Institute (Instituto Nacional de Salud). "Main Page—Institutional (Página Institucional)".

[<http://www.ins.gov.py/>]. Accessed December 2020.

## 2.6 EPIDEMIOLOGY WORKFORCE

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

#### 2.6.1a

Does the country meet one of the following criteria?

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

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

**Current Year Score: 1**

There is evidence that Paraguay has an applied epidemiology training program provided by the Field Epidemiology Training Program (FETP); however, there is no evidence that Paraguay provides resources to send citizens to another country to participate in applied epidemiology training programs (such as FETP). Paraguay has offered the FETP-PEEC program in country since 2011, with technical and financial support of the Centres For Disease Control and Prevention (CDC). The program is coordinated by the General Directorate of Health Surveillance (Dirección General de Vigilancia en Salud, DGVS), a body operating within the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). Among those trained are biochemists, nursing graduates, biologists and doctors. During the first year of training, students are incorporated into different dependent programs of the DGVS, where they must evaluate the epidemiological surveillance system. In the second year, they carry out scientific research work, a fundamental requirement for their certification. During the two years of training, trainees conduct outbreak investigations throughout the country [1]. An update in June 2018 from the Ministry of Public Health and Social Welfare notes that, at the time, 148 professionals from 13 health regions had been trained through the PEEC Basic Program [2]. Finally, there is no evidence provided by the Ministry of Public Health and Social Welfare that the country provides resources to send citizens abroad to participate in the FETP [3].

[1] Cabello, María Agueda, Páez, M., Samudio, M., Ojeda, A., von Horoch, M. Assis, D. Allende, I. 2012. "Paraguayan Field Epidemiology Training Program: Strengthening Epidemiological Surveillance Capacity in the Country (Programa de Entrenamiento en Epidemiología de Campo de Paraguay: fortalecimiento de la capacidad de vigilancia epidemiológica en el país)". [<http://revistas.ins.gov.py/index.php/epidemiologia/article/view/99> ] Accessed 3 December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 24 June 2018. "The Field Epidemiology Program Presents its 148 Trained (El Programa de Epidemiología de Campo presenta sus 148 entrenados)". [<https://www.mspbs.gov.py/portal/15190/el-programa-de-epidemiologia-de-campo-presenta-sus-148-entrenados.html>]. Accessed 3 December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

#### 2.6.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence via the Ministry of Public Health and Social Welfare, the National Institute of Health, the Central Laboratory of Public Health, the World Health Organization (WHO), or the Ministry of Agriculture and Livestock that Paraguay offers a specific animal health field epidemiology training program (FETP) [1,2,3,4,5]. The FETP-PEEC program that the country has offered since 2011 lists its areas of work, but these do not include animal health professionals [6].

[1] Ministry of Public Health and Social Welfare. 2021. [<https://www.mspbs.gov.py>]. Accessed January 2021.

[2] National Institute of Health. 2021. [<http://www.ins.gov.py>]. Accessed January 2021.

[3] Central Laboratory of Public Health. 2021. [<https://www.mspbs.gov.py/lcsp>]. Accessed January 2021.

[4] Ministry of Agriculture and Livestock. 2021. [<http://www.mag.gov.py>]. Accessed January 2021.

[5] World Health Organization (WHO). 2016. "Paraguay". [<http://www.who.int/goe/publications/atlas/2015/pry.pdf>]. Accessed September 2021.

[6] Red de Programas de Epidemiología de Campo en America del Sur (REDSUR). 2016. "Red Sur Tephinet Developed Activities 2016" [[https://www.tephinet.org/sites/tephinet/files/content/attachment/2018-08-31/REDSUR%20bulletin\\_English\\_June2016.pdf](https://www.tephinet.org/sites/tephinet/files/content/attachment/2018-08-31/REDSUR%20bulletin_English_June2016.pdf)]. Accessed January 2021.

## 2.6.2 Epidemiology workforce capacity

### 2.6.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

2020

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

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

### 3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

#### 3.1.1 National public health emergency preparedness and response plan

##### 3.1.1a

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has in place a national emergency response plan that addresses planning for multiple communicable diseases with epidemic or pandemic potential. In September 2019, the Pan American Health Organization (PAHO) reported that the country was developing a National Multi-threat Response Plan for Emergencies and Disasters (Plan de Respuesta Nacional Multiamenaza ante emergencias y desastres). The purpose of the plan was to provide a frame of reference for the organization of the work of the Health Sector at the national and subnational levels and planning responses to various emergencies without the need to duplicate efforts, plans, and resources [1]. However, there is no evidence that the plan was finalized, and there is no evidence of an update from the National Emergency Secretariat (Secretaria de Emergencia Nacional) [2]. In light of the COVID-19 pandemic, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) released a National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2)) on March 11, 2020. However, the COVID-19 plan does not make mention of either the National Multi-threat Response Plan or another emergency preparedness plan for health emergencies [3]. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud) and the National Emergency Secretariat (Secretaria de Emergencia Nacional) do not document or publish information of an overarching national public health emergency response plan in place that addresses planning for multiple communicable diseases with epidemic or pandemic potential [2,3,4]. In addition, although the Ministry of National Defence has established a National Commission for the Prevention and Response to Biological Emergencies, the website for the commission makes no mention of an emergency response plan for biological emergencies [5,6].

[1] Pan American Health Organization (PAHO), World Health Organization (WHO). 10 September 2019. "They Prepare a National Multi-threat Response Plan for Emergencies and Disasters (Elaboran Plan de Respuesta Nacional Multiamenaza ante emergencias y desastres)."

[[https://www.paho.org/par/index.php?option=com\\_content&view=article&id=2252:elaboran-plan-de-respuesta-nacional-multiamenaza-ante-emergencias-y-desastres&Itemid=213](https://www.paho.org/par/index.php?option=com_content&view=article&id=2252:elaboran-plan-de-respuesta-nacional-multiamenaza-ante-emergencias-y-desastres&Itemid=213)] Accessed December 2020.

[2] National Emergency Ministry (Secretaria de Emergencia Nacional). 11 March 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))."

[[https://www.msps.gov.py/dependencias/portal/adjunto/8f2b5d-](https://www.msps.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf)

[3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf](https://www.msps.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf)]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Pagina principal—institucional)". [<https://www.msps.gov.py/index.php>]. Accessed December 2020.

[4] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Pagina principal—institucional)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[5] National Emergency Ministry (Secretaria de Emergencia Nacional). "Main Page—Institutional (Pagina principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[6] Ministerio de Defensa Nacional. 2015. "CONAPREB." [<http://www.mdn.gov.py/index.php/conapreb-inst>]. Accessed December 2020.

### 3.1.1b

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has an overarching emergency response plan that encompasses health emergencies that has been updated in the last three years. There is insufficient evidence that Paraguay has such a plan in

place, although there is evidence that a National Multi-threat Response Plan for Emergencies and Disasters had been in development since 2019 [1]. However, there is evidence of individual plans and legislation regarding national health emergencies that has been created or updated within the past three years. The only plan that is updated and in force on the platforms of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) is the National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2)) [2]. Moreover, Resolution S.G.N No. 76, passed in February 2020, activated the Emergency Operations Center of the Ministry of Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) to respond to the eventual Coronavirus pandemic (COVID19) [3]. Outside of these changes, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud), and the National Emergency Secretariat (Secretaria de Emergencia Nacional) do not have information of an overarching national public health emergency response plan in place that has been updated in the last three years [4,5,6].

[1] Pan American Health Organization (PAHO), World Health Organization (WHO). 10 September 2019. "They prepare a National Multi-threat Response Plan for Emergencies and Disasters (Elaboran Plan de Respuesta Nacional Multiamenaza ante emergencias y desastres)."

[[https://www.paho.org/par/index.php?option=com\\_content&view=article&id=2252:elaboran-plan-de-respuesta-nacional-multiamenaza-ante-emergencias-y-desastres&Itemid=213](https://www.paho.org/par/index.php?option=com_content&view=article&id=2252:elaboran-plan-de-respuesta-nacional-multiamenaza-ante-emergencias-y-desastres&Itemid=213)]. Accessed December 2020.

[2] National Emergency Secretariat (Secretaria de Emergencia Nacional). 11 March 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))."

[<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed December 2020.

[3] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). 28 February 2020. "Resolution S.G.N No. 76 on the Creation of Emergency Operations Centers of the Ministry of Health and Social Welfare to Respond to the Eventual Coronavirus Pandemic (COVID-19) (Resolución SGN No. 76 sobre la conformación de Centros de Operaciones de Emergencia del Ministerio de Salud y Bienestar Social para dar respuesta de la eventual pandemia por Coronavirus (COVID-19))." [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8dc125-ResolucinSGN76COE.pdf>]. Accessed 4 December 2020.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Pagina principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[5] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page— Institutional (Pagina principal—institucional)." [<http://www.vigisalud.gov.py/>]. December 2020.

[6] National Emergency Ministry (Secretaria de Emergencia Nacional). "Main Page—Institutional (Pagina principal—institucional)." [<https://www.sen.gov.py/>]. Accessed December 2020.

### 3.1.1c

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has an overarching emergency response plan that encompasses health emergencies which has considerations for pediatric or other vulnerable populations. There is insufficient evidence that Paraguay has such a plan in place, although there is evidence that a National Multi-threat Response Plan for emergencies and disasters was in development as of 2019 [1]. Furthermore, there is no evidence of an emergency response plan on the websites for the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Ministry (Secretaria de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud); therefore, it is not possible to confirm that the plan includes considerations for vulnerable

populations [2,3,4].

[1] Pan American Health Organization (PAHO), World Health Organization (WHO). 10 September 2019. "They Prepare a National Multi-threat Response Plan for Emergencies and Disasters (Elaboran Plan de Respuesta Nacional Multiamenaza ante emergencias y desastres)." September 10, 2019.

[https://www.paho.org/par/index.php?option=com\_content&view=article&id=2252:elaboran-plan-de-respuesta-nacional-multiamenaza-ante-emergencias-y-desastres&Itemid=213]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Pagina principal—institucional)." [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[3] National Emergency Ministry (Secretaria de Emergencia Nacional). "Main Page—Institutional (Pagina principal—institucional)." [https://www.sen.gov.py/]. Accessed December 2020.

[4] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Pagina principal—institucional)." [http://www.vigisalud.gov.py/]. Accessed December 2020.

### 3.1.1d

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

Yes = 1 , No = 0

**Current Year Score: 0**

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

## 3.1.2 Private sector involvement in response planning

### 3.1.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is insufficient evidence of a specific mechanism in Paraguay for engaging with the private sector to assist with outbreak emergency preparedness and response. Although there is evidence of a mechanism designed specifically to respond to COVID-19, there is insufficient evidence of a mechanism to respond to outbreak emergency preparedness in the long term. In the context of the COVID-19 pandemic, the Paraguayan government decreed that they would coordinate political measures with private sector actors and civil society to achieve maximum resonance and effectiveness [1]. A campaign was also launched between the private and public sectors, led by the Paraguay Global Compact, the Inter-American Development Bank Group (Pacto Global Paraguay, el Grupo Banco Interamericano de Desarrollo (BID)), the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social (MSPyBS)), and the Ministry of Technology of Information and Communication (Ministerio de Tecnologías de la Información y Comunicación (Mitic)) with the purpose of communicating to employers, collaborators, and clients of companies and organizations the need to comply with and respect the biosafety protocols in work environments in the face of the COVID-19 pandemic [2,3]. However, there is no established mechanism for collaboration, but rather a specific response that attacks the COVID-19 pandemic. Finally, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Ministry (Secretaria de Emergencia

Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud) do not document or publish evidence of a specific mechanism for engaging with the private sector to assist with outbreak preparedness and response [4,5,6].

[1] Pan American Health Organization (PAHO), World Health Organization (WHO). 18 March 2020. "The Paraguayan Government Declares a Health Emergency Throughout the National Territory (El gobierno paraguayo decreta emergencia sanitaria en todo el territorio nacional)".

[[https://www.paho.org/par/index.php?option=com\\_content&view=article&id=2379:el-gobierno-paraguayo-decreta-emergencia-sanitaria-en-todo-el-territorio-nacional&Itemid=258](https://www.paho.org/par/index.php?option=com_content&view=article&id=2379:el-gobierno-paraguayo-decreta-emergencia-sanitaria-en-todo-el-territorio-nacional&Itemid=258)]. Accessed 4 December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 6 October 2020. "Public and Private Sector Unite, "We Can Work Safely" (Sector Público y Privado se unen, "Podemos trabajar seguros)".

[<https://www.mspbs.gov.py/portal/21855/sector-publico-y-privado-se-unen-podemos-trabajar-seguros.html>]. Accessed 4 December 2020.

[3] The Nation. (Periódico La Nación). 20 October 2020. "We Can Work Safely": Campaign that Invites you to Continue Working and Taking Care of Yourself" ("Podemos trabajar seguros": campaña que invita a seguir trabajando y cuidándose)".

[<https://www.lanacion.com.py/negocios/2020/10/20/podemos-trabajar-seguros-campana-que-invita-a-seguir-trabajando-y-cuidandose/>]. Accessed 4 December 2020.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[5] National Emergency Ministry (Secretaría de Emergencia Nacional). "Main page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[6] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

### 3.1.3 Non-pharmaceutical interventions planning

#### 3.1.3a

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has a policy, plan, and/or guidelines in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for one or more diseases. There are a few guidelines that were drafted for the COVID-19 pandemic—the government launched a campaign with the private sector to encourage compliance with workplace safety guidances. The "We can work safely" ("Podemos trabajar seguros") campaign has the objective of sending a message to citizens, especially to workers, not to lower their guard and continue to comply with health protocols. However, the guidelines are specific for the COVID-19 context and are not general guidelines for more epidemics or pandemics; moreover, available information does not indicate the existence of a broader plan on NPIs for more than one disease [1,2]. Finally, there is no evidence in the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Ministry (Secretaría de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud) regarding NPIs for more than one disease [3,4,5].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 6 October 2020. "Public and Private Sector Unite, "We Can Work Safely" (Sector Público y Privado se unen, "Podemos trabajar seguros)".

[<https://www.mspbs.gov.py/portal/21855/sector-publico-y-privado-se-unen-podemos-trabajar-seguros.html>]. Accessed 4 December 2020.

[2] The Nation (Periódico La Nación). 20 October 2020. "We Can Work Safely": Campaign that Invites you to Continue Working and Taking Care of Yourself" ("Podemos trabajar seguros": campaña que invita a seguir trabajando y cuidándose)". [<https://www.lanacion.com.py/negocios/2020/10/20/podemos-trabajar-seguros-campana-que-invita-a-seguir-trabajando-y-cuidandose/>]. Accessed 4 December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] National Emergency Ministry (Secretaria de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[5] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

## 3.2 EXERCISING RESPONSE PLANS

### 3.2.1 Activating response plans

#### 3.2.1a

Does the country meet one of the following criteria?

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

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

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

**Current Year Score: 1**

There is evidence that Paraguay has activated a national emergency response plan for an infectious disease outbreak in the past year. However, there is no evidence that Paraguay has completed a national-level biological threat-focused exercise in the past year. In March 2020, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) drafted and activated the National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2)), a technical document that plans the response to COVID-19 with a multisectoral strategy capable of mitigating the impact it could have on the general population [1]. Furthermore, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Ministry (Secretaria de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud) do not document or publish evidence related to Paraguay completing a national-level biological threat-focused exercise [2,3,4]. There is no evidence of any activity related to the World Health Organization's (WHO) Simulation Exercise [5].

[1] National Emergency Ministry (Secretaria de Emergencia Nacional). 11 March 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))." [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed 4 December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[3] National Emergency Ministry (Secretaria de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.



[4] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[5] World Health Organization (WHO). "Simulation Exercise." [<https://extranet.who.int/sph/simulation-exercise>]. Accessed May 2021.

### 3.2.1b

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay, in the past year, has identified a list of gaps and best practices in response to a disease response or a biological-threat focused exercise and developed a plan to improve response capabilities. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Secretariat (Secretaria de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud), Central Laboratory for Public Health (Laboratorio Central de Salud Pública), the World Health Organization's (WHO) Electronic State Parties Self-Assessment Annual Reporting Tool—Paraguay and the PanAmerican Health Organization do not document or publish evidence of an after-action review of an infectious diseases response or a biological-threat focused exercise [1,2,3,4,5,6].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal - institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[2] National Emergency Secretariat (Secretaria de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)." [<https://www.sen.gov.py/>]. Accessed December 2020.

[3] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[4] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main institutional page (Página Institucional)." [<http://vigisalud.gov.py/>]. Accessed December 2020.

[5] World Health Organization (WHO). "Electronic State Parties Self-Assessment Annual Reporting Tool—Paraguay." [<https://extranet.who.int/e-spar#capacity-score>]. Accessed December 2020.

[6] PanAmerican Health Organization (PAHO)—Paraguay. "Main Page—Institutional (Página principal—institucional)". [<https://www.paho.org/es/paraguay>]. Accessed December 2020.

## 3.2.2 Private sector engagement in exercises

### 3.2.2a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has in the past year undergone a national-level biological threat-focused exercise that has included private sector representatives. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y

Bienestar Social), National Emergency Secretariat (Secretaria de Emergencia Nacional), National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud), Central Laboratory for Public Health (Laboratorio Central de Salud Pública), and the World Health Organization (WHO) do not document or publish information evidence of a national-level biological threat-focused exercise that has included private sector representatives [1,2,3,4,5,6,7].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[2] National Emergency Secretariat (Secretaria de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)." [https://www.sen.gov.py/]. Accessed December 2020.

[3] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)." [http://www.vigisalud.gov.py/]. Accessed December 2020.

[4] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Institutional Page (Página Institucional)." [http://vigisalud.gov.py/]. Accessed December 2020

[5] World Health Organization (WHO). "Electronic State Parties Self-Assessment Annual Reporting Tool—Paraguay." [https://extranet.who.int/e-spar#capacity-score]. Accessed December 2020.

[6] Panamerican Health Organization (PAHO)—Paraguay. "Main Page—Institutional (Página principal—institucional)." [https://www.paho.org/es/paraguay]. Accessed December 2020.

[7] World Health Organization (WHO). "After Action Review (AAR)". [https://extranet.who.int/sph/after-action-review]. Accessed December 2020.

## 3.3 EMERGENCY RESPONSE OPERATION

### 3.3.1 Emergency response operation

#### 3.3.1a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that Paraguay has an Emergency Operations Center (EOC). The EOC has a national scope and oversees the municipal Emergency Operations System, which is divided into sections that are capable of responding with a variety of skills, including planning and execution, health, human services, and emergency services [1]. The municipal Emergency Operation System aims to direct all actions of co-ordination and operation, including alert systems and surveillance of emergency events. The aim is to maintain efficient control of operations to guarantee opportune execution of emergency response activities [2]. In addition to the Emergency Operations Centre, there is also a multidisciplinary technical organ for biological emergency response across ministries called the National Commission for the Prevention and Response to Biological Emergencies. However, the Emergency Operations Centre is the principal such body for emergency response, including health emergencies [3]. Resolution S.G.N No. 76, passed in February 2020, activated the Emergency Operations Center of the Ministry of Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) to respond to the Coronavirus pandemic (COVID19) [4].

[1] National Secretariat for Emergencies (Secretariacutec a Nacional de Emergencias). 2018. "Organic Structure (Estructura Organica)". [https://www.sen.gov.py/application/files/2915/9422/5321/Organigrama.pdf]. Accessed December 2020.

[2] Emergency Operations Centre of the Municipality of Encarnación. 2020. "Mission (Mision)". [http://encarnacion.gov.py/centro-de-operaciones-de-emergencia/]. Accessed December 2020.

[3] National Ministry of Defense. 2018. "CONAPREB". [http://www.mdn.gov.py/index.php/conapreb]. Accessed December

2020.

[4] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). 28 February 2020. "Resolution S.G.N No. 76 on the Creation of Emergency Operations Centers of the Ministry of Health and Social Welfare to Respond to the Eventual Coronavirus pandemic (COVID-19) (Resolución SGN No. 76 sobre la conformación de Centros de Operaciones de Emergencia del Ministerio de Salud y Bienestar Social para dar respuesta de la eventual pandemia por Coronavirus (COVID-19)". [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8dc125-ResolucinSGN76COE.pdf>]. Accessed 4 December 2020.

### 3.3.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay's Emergency Operations Center (EOC) is required to conduct a drill for a public health emergency at least once a year or that the Emergency Operations Center (EOC) conducts a drill at least once per year. In this sense, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Secretariat (Secretaria de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud), Central Laboratory for Public Health (Laboratorio Central de Salud Pública), and the municipal Emergency Operation System do not document or publish information about requirements to conduct a drill for a public health emergency at least once a year or that the Emergency Operations Center (EOC) conducts a drill at least once per year. There is evidence that the Coordination of Health Assistance in Emergencies and Disasters (Coordinación de Asistencia Sanitaria en Emergencias y Desastres (ASANED)) has conducted public health drills in the past; however, these are not requirements or regularly conducted [1,2,3,4,5,6]. However, in the past year, there is evidence the EOC was activated. Resolution S.G.N No. 76, passed in February 2020, activated the Emergency Operations Center of the Ministry of Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) to respond to the eventual Coronavirus pandemic (COVID19) [7].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Pagina principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[2] National Emergency Secretariat (Secretaria de Emergencia Nacional). "Main Page—Institutional (Pagina principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[3] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Pagina principal—institucional)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[4] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Institutional Page (Pagina Institucional)". [<http://vigisalud.gov.py/>]. Accessed December 2020.

[5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). November 24, 2018.

"#Caacup&eacute;2018: they carry out medical assistance simulation for a quick and effective response (#Caacup&eacute;2018: realizan simulacro de asistencia m&eacute; dica para una respuesta r&aacute; pida y efectiva)". [<https://www.mspbs.gov.py/portal/16777/caacupe2018-realizan-simulacro-de-asistencia-medica-para-una-respuesta-rapida-y-efectiva.html>]. Accessed December 2020.

[6] Emergency Operations Centre of the Municipality of Encarnación. 2020. "Mission (Mision)". [<http://encarnacion.gov.py/centro-de-operaciones-de-emergencia/>]. Accessed December 2020.

[7] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). 28 February 2020. "Resolution S.G.N No. 76 on the creation of Emergency Operations Centers of the Ministry of Health and Social Welfare to respond to the eventual Coronavirus pandemic (COVID19) (Resolución SGN No. 76 sobre la

conformación de Centros de Operaciones de Emergencia del Ministerio de Salud y Bienestar Social para dar respuesta de la eventual pandemia por Coronavirus (COVID-19)". [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8dc125-ResolucinSGN76COE.pdf>] Accessed 4 December 2020.

### 3.3.1c

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay 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 Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Secretariat (Secretaria de Emergencia Nacional), the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud), and the the municipal Emergency Operation System do not document or publish information related to timeframes, such as response exercises activated within 120 minutes of the identification of the public health emergency/scenario [1,2,3,4]. However, in the past year, there is evidence that the EOC was activated. Resolution S.G.N No. 76, passed in February 2020, activated the Emergency Operations Center of the Ministry of Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) to respond to the eventual Coronavirus pandemic (COVID-19). The law notes that the EOC had been activated in anticipation that the SARS-CoV-2 virus would eventually reach the country; it has not been activated as a result of the identification of a suspected or confirmed case in Paraguay [5].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Pagina principal - institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[2] National Emergency Secretariat (Secretaria de Emergencia Nacional). "Main Page—Institutional (Pagina principal— institucional)." [<https://www.sen.gov.py/>]. Accessed December 2020.

[3] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Pagina principal— institucional)." [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

[4] Emergency Operations Centre of the Municipality of Encarnación. 2020. "Mission (Mision)". [<http://encarnacion.gov.py/centro-de-operaciones-de-emergencia/>]. Accessed December 2020.

[5] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). "Resolution S.G.N No. 76 on the Creation of Emergency Operations Centers of the Ministry of Health and Social Welfare to Respond to the Eventual Coronavirus Pandemic (COVID19) (Resolución SGN No. 76 sobre la conformación de Centros de Operaciones de Emergencia del Ministerio de Salud y Bienestar Social para dar respuesta de la eventual pandemia por Coronavirus (COVID19))". 28 February 2020. [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8dc125-ResolucinSGN76COE.pdf>]. Accessed 4 December 2020.

## 3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

#### 3.4.1a

Does the country meet one of the following criteria?

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

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

**Current Year Score: 0**

There is no evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event. Moreover, there is no public 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. Although the health and defense ministries have established a National Commission for the Prevention and Response to Biological Emergencies (CONAPREB), there is no publicly available evidence of MOUs or other agreements detailing the specific operating procedures to respond to deliberate biological events. CONAPREB is constituted of high-level government and non-government officials specialized in co-ordination and articulation of capacities and sectoral efforts to prevent and respond effectively to biological, chemical, and radioactive emergencies [1]. Finally, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Secretariat (Secretaria de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud) do not document or publish information related to carrying out exercises to respond to a potential deliberate biological event or of guidelines between the public health and security authorities to respond to a potential deliberate biological event [2,3,4,5].

[1] Ministry of National Defense (Ministerio de la Defensa Nacional). 2015. "CONAPREB".

[http://www.mdn.gov.py/index.php/conapreb-inst]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[3] National Emergency Secretariat (Secretaria de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)." [https://www.sen.gov.py/]. Accessed December 2020.

[4] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)." [http://www.vigisalud.gov.py/]. Accessed December 2020.

[5] Ministry of National Defense (Ministerio de la Defensa Nacional). "Main Page—Institutional (Página principal—institucional)". [http://www.mdn.gov.py/index.php]. Accessed December 2020.

## 3.5 RISK COMMUNICATIONS

### 3.5.1 Public communication

#### 3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Paraguay's risk communication plan outlines how messages will reach populations and sectors with different communications needs. Resolution S.G. 633, which approved the Manual of Strategic Communication on Health in Section 3.3 over the Communication Policy Management on Health Emergencies, includes guidelines for risk communications during a public health emergency. The second guidelines under Section 3.3 on the Communication Policy Management on Health Emergencies establishes that the appointed spokespeople will "repeat the information in multiple formats, will communicate messages based on the different learning styles of the population, and will foster the interaction with media, opinion leaders, public institutions, NGO's, etc." [1].

[1] Legislative Branch, Ministry of Public Health and Social Welfare, Congress of the Nation of Paraguay (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social, Congreso de la Nación). Law No. 633, June 21, 2013. "Resolution 633 by which the Manual of Strategic Communication in Health is Approved and Provides its Implementation and Application in the Ministry of Public Health and Social Welfare (Resolución 633 por la cual se aprueba el Manual de Comunicación Estratégica en Salud, y dispone su implementación y aplicación en el Ministerio de Salud Pública y Bienestar Social).

[<http://portal.mspbs.gov.py/mecip/wp-content/uploads/2012/03/RES-SG-N%C2%BA-633-13-Manual-de-comunicacion-p.pdf>]. Accessed January 2021.

### 3.5.1 Risk communication planning

#### 3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that Paraguay has in place, in a national public health emergency response plan, a section detailing a risk communication plan that is specifically intended for use during a public health emergency. The plan is part of a policy guide for overall strategic health communications, rather than part of a plan for public health emergencies, more specifically. Resolution S.G. 633, which approved the Manual of Strategic Communication on Health on Section 3.3 over the Communication Policy Management on Health Emergencies, includes guidelines for risk communications during a public health emergency. The plan establishes that in case of a health emergency, the head of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) will activate the Committee for Communication during a health crisis, which is responsible for drafting and executing the "Plan of Communication in [Health] Emergency Situations" [1].

[1] Legislative Branch, Ministry of Public Health and Social Welfare, Congress of the Nation of Paraguay (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social, Congreso de la Nación). Law No. 633, June 21, 2013. "Resolution 633 by which the Manual of Strategic Communication in Health is approved, and provides its implementation and application in the Ministry of Public Health and Social Welfare (Resolución 633 por la cual se aprueba el Manual de Comunicación Estratégica en Salud, y dispone su implementación y aplicación en el Ministerio de Salud Pública y Bienestar Social). [<http://portal.mspbs.gov.py/mecip/wp-content/uploads/2012/03/RES-SG-N%C2%BA-633-13-Manual-de-comunicacion-p.pdf>]. Accessed January 2021.

### 3.5.1c

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

Yes = 1, No = 0

**Current Year Score: 1**

There is evidence that Paraguay's risk communication strategy designates a specific position within the government to serve as the primary spokesperson during a public health emergency. Furthermore, there is evidence that the country has planned for the ad-hoc appointment of an appropriate official to serve in this role. Resolution S.G. 633, which approved the Manual of Strategic Communication on Health on Section 3.3 over the Communication Policy Management on Health Emergencies, includes guidelines for risk communications during a public health emergency. The plan states that the Minister of Health will appoint an official spokesperson and an alternate spokesperson and a chain of spokespersons [1]. The Strategic Communication Manual states that the Official Spokesperson will be the person who will receive the information from the Crisis Committee and this information will be provided through press conferences at appropriate times, according to the circumstances [2]. However, the plan does not note that this position should be occupied by a specific person in a particular role.

[1] Legislative Branch, Ministry of Public Health and Social Welfare, Congress of the Nation of Paraguay (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social, Congreso de la Nación). Law No. 633, June 21, 2013. "Resolution 633 by which the Manual of Strategic Communication in Health is Approved, and Provides its Implementation and Application in the Ministry of Public Health and Social Welfare (Resolución 633 por la cual se aprueba el Manual de Comunicación Estratégica en Salud, y dispone su implementación y aplicación en el Ministerio de Salud Pública y Bienestar Social).

[<http://portal.mspbs.gov.py/mecip/wp-content/uploads/2012/03/RES-SG-N%C2%BA-633-13-Manual-de-comunicacion-p.pdf>]. Accessed December 2020

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Strategic Communication Manual (Manual Estratégico de Comunicación)". [<http://portal.mspbs.gov.py/mecip/wp-content/uploads/2013/07/MANUAL-DE-COMUNICACION-2013-PARTE-2.pdf>]. Accessed December 2020.

## 3.5.2 Public communication

### 3.5.2a

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

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

**Current Year Score: 2**

There is evidence that the the public health system in Paraguay has actively shared messages via online media platforms. The Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) has an active Twitter Account where they publish tweets on health and disseminate information and news on the subject. They have an average of seven to eight tweets a day where, on the one hand, they disseminate current information on deaths and statistical data related to COVID-19; and, on the other hand, they publish relevant information related to vaccination campaigns, health services qualification, and public health education [1]. They are also active on Facebook with an average of four to five posts per day similar to those they do on Twitter [2]. Moreover, the website of the Ministry of Public Health and Social Welfare has its own news center, where they intend to make publications of relevant events that are taking place as part of the National Health System [3].

[1] Twitter, Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Twitter Profile". [https://twitter.com/msaludpy]. Accessed December 2020.

[2] Facebook, Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Facebook Profile". [https://www.facebook.com/ministeriodesaludparaguay/]. Accessed December 2020.

### 3.5.2b

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

No = 1, Yes = 0

**Current Year Score: 1**

There is no evidence of senior leaders sharing misinformation or disinformation on infectious diseases in the past two years. The Ministry of Information and Communication Technologies launched an initiative to fight misinformation called "Chake Fake News!" It was a project promoted by the Inter-American Development Bank (IDB) Group, the United Nations Development Program (UNDP), and the Ministry of Information and Communication Technologies (MITIC), within the framework of the project communication as a strategy to mitigate misinformation in the COVID-19 pandemic [1]. Finally, the major national news outlet La Nación Paraguay, CNN, the BBC, and the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the National Emergency Secretariat (Secretaría de Emergencia Nacional), and the National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud) do not document or publish evidence of Paraguayan senior leaders sharing misinformation on infectious diseases [2,3,4,5,6,7].

[1] Ministry of Information and Communication Technologies (Ministerio de Tecnologías de la Información y Comunicación). "We launched Chake Fake News!, An Initiative to Fight Misinformation (Lanzamos &excl;Chake Fake News!, una iniciativa para luchar contra la desinformación)". [https://www.mitic.gov.py/noticias/mitic-y-pnud-presentan-iniciativa-chake-fake-news]. Accessed December 2020.

[2] La Nación Paraguay. "Main Page (Página principal)". [https://www.lanacion.com.py/]. Accessed December 2020.

[3] Cable News Network (CNN). "Main Page—Paraguay (Página principal—Paraguay)". [https://cnnespanol.cnn.com/tag/paraguay/]. Accessed December 2020.

[4] British Broadcasting Corporation (BBC). "Main Page—Paraguay (Página principal—Paraguay)".

[5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/index.php]. Accessed December 2020.



[6] National Emergency Secretariat (Secretaria de Emergencia Nacional). "Main Page—Institutional (Página principal—institucional)". [<https://www.sen.gov.py/>]. Accessed December 2020.

[7] National Directorate of Health Surveillance (Dirección Nacional de Vigilancia en Salud). "Main Page—Institutional (Página principal—institucional)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

## 3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

### 3.6.1 Internet users

#### 3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 68.52

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: 106.95

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: 1.0

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: 4.0**

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 the past year, the government of Paraguay issued a restriction, without international/bilateral support, on the export of medical goods due to an infectious disease outbreak. In March 2020, Paraguay issued the requirement of special licenses for the export of alcohol in gel and surgical masks in the phase of the COVID-19 epidemic; these restrictions are set to last for one year [1]. Moreover, the Executive Branch, through the Ministry of Public Health and Social Well-being (Ministerio de Salud Pública y Bienestar Social) issued Resolution 107, which establishes special conditions on the control of the active ingredients of hydroxychloroquine and chloroquine by declaring the active ingredients as essential for the National Health System, during the COVID-19 pandemic [2].

[1] World Trade Organization (WTO). 18 November 2020. "COVID-19: Measures Affecting Trade in Goods (COVID-19: Medidas que afectan al comercio de mercancías)".

[[https://www.wto.org/spanish/tratop\\_s/covid19\\_s/trade\\_related\\_goods\\_measure\\_s.htm](https://www.wto.org/spanish/tratop_s/covid19_s/trade_related_goods_measure_s.htm)]. Accessed December 2020.

[2] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Resolution No. 107. March 23, 2020. "Resolution 107 by which Special Control Conditions are Established on the Active Principles of Hydroxychloroquine and Chloroquine (Resolución 207 por la cual se establecen condiciones especiales de control sobre los principios activos de la hidroxiclороquina y cloroquina)". [<https://www.mspbs.gov.py/dependencias/dnvs/adjunto/560a90-RESOLUCIONSG.N107.pdf>]. Accessed December 2020.

#### 3.7.1b

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

Yes = 0, No = 1

**Current Year Score: 1**

In the past year, the government of Paraguay did not issue any restriction, without international/bilateral support, on the export of non medical goods due to an infectious disease outbreak. According to the World Trade Organization (WTO), in April 2020, the government of Paraguay enacted a reduction of 30%–40% of import fees of goods due to the COVID-19 pandemic. It also implemented the digitization of export processes, which reduced the costs of exports [1][2]. With regard to the agricultural and livestock sector, the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería)

provided aid to farmworkers who have been affected by the COVID-19 pandemic [2]. However, the websites of the ministries of Health and Social Well-being (Ministerio de Salud y Bienestar Social), Agriculture and Livestock (Ministerio de Agricultura y Ganadería), Industry and Commerce (Ministerio de Industria y Comercio), and Foreign Affairs (Ministerio de Relaciones Exteriores) did not document any restriction on the export of non-medical goods [3,4,5,6].

[1] World Trade Organization (WTO). 18 November 2020. "COVID-19: Measures Affecting Trade in Goods (COVID-19: Medidas que afectan al comercio de mercancías)".

[[https://www.wto.org/spanish/tratop\\_s/covid19\\_s/trade\\_related\\_goods\\_measure\\_s.htm](https://www.wto.org/spanish/tratop_s/covid19_s/trade_related_goods_measure_s.htm)]. Accessed December 2020

[2] Committee on Agriculture, World Trade Organization. 28 July 2020. "Measures Taken in the Context of the Covid-19 Pandemic with Implications for the Agricultural Sector". [[https://macmap.org/OfflineDocument/Covid19/COVID\\_PRY\\_4.pdf](https://macmap.org/OfflineDocument/Covid19/COVID_PRY_4.pdf)]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional)". Accessed December 2020.

[5] Industry and Commerce Ministry (Ministerio de Industria y Comercio). "Main Page—Institutional (Página principal—institucional)". [<http://www.mic.gov.py/mic/w/inicio.php>]. Accessed December 2020.

[6] Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores). "Search Engine—COVID (Buscador COVID)".

[[https://www.mre.gov.py/index.php/buscador?search\\_paths%5B%5D=&query=covid&ccm\\_paging\\_p=1](https://www.mre.gov.py/index.php/buscador?search_paths%5B%5D=&query=covid&ccm_paging_p=1)]. Accessed 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 the past year, the government of Paraguay implemented a ban on travelers due to an infectious disease outbreak. According to the Paraguayan Information Agency (Agencia de Información Paraguaya), the restrictions during the COVID-19 pandemic were placed in three main phases: The first phase, in February 2020, the government issued a ban on visas from Chinese nationals or foreigners who had travelled to the Chinese mainland. The second phase, in March 2020, the government declared a General Preventive Isolation across the country. In the third phase, in March 2020, the government closed its borders with Argentina, Brazil, and Bolivia to prevent mass infection [1]. According to the Ministry of Interior (Ministerio del Interior), since November 2020, the Paraguayan government has opened its borders with special requirements to foreigners and nationals to enter the country. The nationals or foreigners who wish to enter the country must fill out a Declaration of Travelers Health (Ficha de Declaración de Salud del Viajero) and present a negative test for COVID-19 prior to their arrival [2]. Thus, in this sense, the government of Paraguay implemented a ban on travel and restrictions due to the COVID-19 pandemic.

[1] Paraguayan Information Agency (Agencia de Información Paraguaya). June 21, 2020. "With Rapid Response, Geographic Isolation, and Border Closures, Paraguay Manages to Contain the Virus (Con respuesta rápida, aislamiento geográfico y cierre de fronteras, Paraguay logra contener al virus)". [<https://www.ip.gov.py/ip/paraguay-con-respuesta-rapida-aislamiento-geografico-y-cierre-de-fronteras-logro-contener-al-virus/>]. Accessed December 2020.

[2] Ministry of the Interior, General Directorate of Migration (Ministerio del Interior, Dirección General de Migraciones).

November 24, 2020. "These Are the Health Requirements for Entering Paraguay That are in Force since November 23 (Estos son los requerimientos sanitarios de ingreso al Paraguay que rigen desde el 23 de noviembre)".

[<http://www.migraciones.gov.py/index.php/noticias/estos-son-los-requerimientos-sanitarios-de-ingreso-al-paraguay-que-rigen-desde-el-23-de-noviembre>]. Accessed December 2020.

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

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

#### 4.1.1 Available human resources for the broader healthcare system

##### 4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 135.44

2018

WHO; national sources

##### 4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 166.04

2018

WHO; national sources

##### 4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Paraguay does not 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. Moreover, in 2006, the Ministry of

Health and Social Welfare implemented an Academic Regulation for Third Level Careers, Auxiliary Level and General Services in the Health Sector (Reglamento Académico de Regulación de Carreras del Tercer Nivel, Nivel Auxiliar y de Servicios Generales en el Área de la Salud), but no evidence of the regulation being updated was found [1]. Moreover, there is no evidence that the Ministries of Health, Ministry of Social Welfare and Labor, Ministry of Employment and Social Security, and Ministry of Education and Sciences have a recent health workforce strategy to address insufficient workforce in the health sector [2][3][4].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Academic Regulation of Careers Regulation of the Third Level, Auxiliary Level and General Services in the Area of Health (Reglamento Academico De Regulacion De Carreras Del Tercer Nivel, Nivel Aiuxiliary De Servicios Generales en el Área De La Salud)".

[<https://www.mspbs.gov.py/drcps/resolucion800.html>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>].

[3] Ministry of Labor, Employment and Social Security (Ministerio de Trabajo, Empleo y Seguridad Social). "Main page—Institutional (Página principal—institucional)." [<https://www.mtess.gov.py/>]. Accessed December 2020.

[4] Ministry of Education and Sciences (Ministerio de Educación y Ciencia). "Main Page—Institutional (Página principal—institucional)." [<https://www.mec.gov.py/cms/>]. Accessed December 2020.

## 4.1.2 Facilities capacity

### 4.1.2a

#### Hospital beds per 100,000 people

Input number

**Current Year Score: 83**

2016

WHO/World Bank; national sources

### 4.1.2b

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence that the country has the capacity to isolate patients with highly communicable diseases. The ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Central Laboratory for Public Health (Laboratorio Central de Salud Pública), Directory of Specialized Hospitals [Directorio de Hospitales Especializados], National Commission in Response with the Prevention to Biological Emergencies Commission (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas), and Ministry of National Defense (Ministerio de la Defensa Nacional) do not provide evidence regarding the country's capacity to isolate patients [1,2,3,4,5].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[2] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Page—Institutional (Página principal—

institucional)." [https://www.mspbs.gov.py/lcsp]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Directory of Specialized Hospitals (Directorio de Hospitales Especializados)". [https://www.mspbs.gov.py/portal/hospitales-especializados.html]. Accessed December 2020.

[4] National Commission in Response and Prevention to Biological Emergencies (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas). "Main Page—Institutional (Página principal—institucional)." [http://www.mdn.gov.py/index.php/conapreb]. Accessed December 2020.

[5] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)." [http://www.mdn.gov.py/]. Accessed December 2020.

#### 4.1.2c

**Does the country meet one of the following criteria?**

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

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has demonstrated capacity to expand its isolation capacity in response to an infectious disease outbreak in the last two years. Moreover, there is no evidence that Paraguay has developed, updated, or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the last two years. In response to the Covid-19 pandemic, Paraguay drafted the Protocol of isolation and quarantine (Protocolo de Aislamiento y Cuarentena) on November 2020. The document establishes that any person that tests positive for COVID-19 must isolate for ten days in the case of mild symptoms and seven days after being released from a hospital facility [1]. However, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Central Laboratory for Public Health (Laboratorio Central de Salud Pública), Directory of Specialized Hospitals [Directorio de Hospitales Especializados], National Commission in Response to the Prevention of Biological Emergencies Commission (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas), and the Ministry of National Defense (Ministerio de la Defensa) do not provide evidence of demonstrated capacity to expand isolation capacity or evidence that Paraguay has developed, updated, or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the last two years [2][3][4][5][6].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Protocol of Isolation and Quarantine (Protocolo de Aislamiento y Cuarentena)". [https://www.mspbs.gov.py/dependencias/portal/adjunto/32c2e8-20201116AislamientoyCuarentena.pdf]. Accessed April 2021.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [https://www.mspbs.gov.py/index.php]. Accessed April 2021.

[3] Central Laboratory for Public Health (Laboratorio Central de Salud Pública) "Main Page—Institutional (Página principal—institucional)." [https://www.mspbs.gov.py/lcsp]. Accessed April 2021.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) "Directory of Specialized Hospitals (Directorio de Hospitales Especializados)" [https://www.mspbs.gov.py/portal/hospitales-especializados.html]. Accessed April 2021.

[5] National Commission in Response and Prevention to Biological Emergencies (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas). "Main Page—Institutional (Página principal—institucional)." [http://www.mdn.gov.py/index.php/conapreb]. Accessed April 2021.

[6] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)." [http://www.mdn.gov.py/]. Accessed April 2021.

institucional)." [http://www.mdn.gov.py/]. Accessed April 2021.

## 4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

### 4.2.1 Routine health care and laboratory system supply

#### 4.2.1a

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

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

**Current Year Score: 2**

There is evidence that Paraguay has a national procurement protocol in place that can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory supplies (e.g., equipment, reagents, and media) and medical supplies (e.g., equipment and personal protective equipment (PPE)) for routine needs. The General Directorate for Public Procurement (Dirección General de Contrataciones Públicas) is in charge of all public contracts, public bids and acquisitions, including medical supplies and laboratory supplies for both the Ministry of Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) and the Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) [1][2][3]. Moreover, the National Directorate for Public Procurement provides a portal listing all such open requests [4]. This explicitly includes the procurement of laboratory equipment under Category 17, "Medical and Laboratory Equipment, Products and Instruments" [5]. The General Directorate for Public Contracts (Dirección General de Contrataciones Públicas) regulated by Act 2051/03 establishes that the National System for Public Contracts is in charge of planning, programming, budgeting, and hiring of all public goods and services for the public sector [6].

[1] National Directorate of Public Procurement (Dirección Nacional de Contrataciones Públicas). "Public Procurement Portal (Portal de Contrataciones Públicas)". [https://www.contrataciones.gov.py/]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[3] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal - institucional)". [http://www.mag.gov.py/]. Accessed December 2020.

[4] National Directorate for Public Procurement. 2021. "Open Tenders by Category (Licitaciones Abiertas por Categoría)". [https://www.contrataciones.gov.py]. Accessed January 2021.

[5] National Directorate for Public Procurement (Dirección Nacional de Contrataciones Públicas (DNCP)). 2021. "Search Results (Resultados de Búsqueda)". [https://www.contrataciones.gov.py/buscador/general.html?filtro=salud&page=]. Accessed January 2021.

[6] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 2051, January 23, 2003. "Law No. 2051 on Public Procurement ( Ley No. 2051 de Contrataciones Públicas)".

[https://www.bacn.gov.py/leyes-paraguayas/159/ley-n-2051-de-contrataciones-publicas#:~:text=Queda%20estrictamente%20prohibido%20fracccionar%20o,previstas%20en%20el%20Art%C3%ADculo%2035]. Accessed 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: 1**

There is evidence that Paraguay maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency; however, there is little public information on what the stockpile contains. There are several documents that outline national plans and systems related to stockpiles and medical supplies. The System of Information and Stockpile Control (Sistema de Información y Control de Inventarios Automatizado del Paraguay (SICIAP)) has as one of its objectives to foster the access of the population to safe, effective, and quality medical products [1,2]. According to the National Response Plan for the Eventual Entering of Coronavirus (Plan de Respuesta Nacional al Eventual Ingreso del Coronavirus) (COVID-19), SICIAP has an alarm system to ensure there is sufficient inventory of critical products to last at least a few months [3]. The National Policy for Medical Supplies (Política Nacional de Medicamentos) covers national issues such as strengthening the sanitary authorities and governance; securing quality, efficiency, and security of medical supplies; securing availability of coverage of essential medical supplies; securing effective access to quality pharmaceutical services; securing the rational use of medical supplies; securing the availability of human resources; and developing and strengthening the information systems of the pharmaceutical sector [4]. However, none of the above documents makes a specific mention of what the reserves/stockpiles contain [1,2,3,4]. Furthermore, neither the Ministry of National Defense (Ministerio de la Defensa Nacional) nor the National Commission of Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas) document or publish stockpiling details of medical supplies for national use during a public health emergency [5,6].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). System of Information and Stockpile Control (Sistema de Información y Control de Inventarios Automatizado del Paraguay (SICIAP). Main page — Institutional". [<https://www.mspbs.gov.py/portal.php?url=dggies&page=1&q=>]. Accessed April 2021.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2015. "National Drug Policy (Política Nacional de Medicamentos)". [<https://www.mspbs.gov.py/dependencias/portal/adjunto/ab85d7-PoliticaNacionaldeMedicamentosParaguay2015.pdf>]. Accessed January 2021.

[3] National Emergency Ministry (Secretaria de Emergencia Nacional). 11 March 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))."

[<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed December 3th, 2020.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). August 25, 2015. "National Health Policy 2015-2030 (Política Nacional de Salud 2015-2030)".

[<https://www.mspbs.gov.py/dependencias/portal/adjunto/90c029-POLITICANACIONALDESALUD.pdf>]. Accessed January 2021.

[5] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page — Institutional (Paucutegina Principal — Institucional)". [<http://www.mdn.gov.py/>]. Accessed January 2021.

[6] National Commission in Response and Prevention to Biological Emergencies (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas) "Main Page — Institutional (Paucutegina principal — Institucional)".

[<http://www.mdn.gov.py/index.php/conapreb>]. Accessed January 2021.



#### 4.2.2b

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

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

**Current Year Score: 0**

Although there is evidence that Paraguay maintains a stockpile of critical products, there is insufficient evidence that it includes a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. The Central Laboratory for Public Health (Laboratorio Central de Salud Pública) has as its mission to guarantee the population services of disease control and major health issues, but it does not mention any content of stockpile/reserves of laboratory supplies [1]. There are several documents that outline national plans and systems related to stockpiles for medical supplies, but none of them specifically mention laboratory supplies. The System of Information and Stockpile Control (Sistema de Información y Control de Inventarios Automatizado del Paraguay (SICIAP)) has as one of its objectives to foster the access of the population to safe, effective, and quality medical products [2,3]. According to the National Response Plan for the Eventual Entering of Coronavirus (Plan de Respuesta Nacional al Eventual Ingreso del Coronavirus) (COVID-19), SICIAP has an alarm system to ensure that there is sufficient inventory of critical products to last at least a few months [4]. Furthermore, the National Policy for Medical Supplies (Política Nacional de Medicamentos) covers national issues such as strengthening the sanitary authorities and governance; securing the quality, efficiency, and security of medical supplies; securing the availability of coverage of essential medical supplies; securing effective access to quality pharmaceutical services; securing the rational use of medical supplies; securing the availability of human resources and developing and strengthening the information systems of the pharmaceutical sector [5]. None of the above documents makes a specific mention of what the reserves/stockpiles contain or if they account for laboratory supplies [2,3,4,5]. No further information is available via the Ministry of Public Health and Social Welfare, the Ministry of National Defense (Ministerio de la Defensa Nacional), or the National Commission of Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas) on stockpiles of laboratory equipment for national use during a public health emergency [6,7,8].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health - Vision and Mission (Laboratorio Central de Salud Pública &ndash; Visión y Misión)".

[<https://www.msps.gov.py/lcsp/vision-y-mision.html>] Accessed January 2021.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). July 7, 2020. "Medicines Monitoring Center is a new transparency tool (Centro de Monitoreo de Medicamentos es nueva herramienta de transparencia). [<https://www.msps.gov.py/portal/21258/centro-de-monitoreo-de-medicamentos-es-nueva-herramienta-de-transparencia.html>]. Accessed January 2021.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2015. "National Drug Policy (Política Nacional de Medicamentos)". [<https://www.msps.gov.py/dependencias/portal/adjunto/ab85d7-PoliticaNacionaldeMedicamentosParaguay2015.pdf>]. Accessed January 2021.

[4] National Emergency Ministry (Secretaria de Emergencia Nacional). March 11, 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))."

[<https://www.msps.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed 3 December 2020.

[5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). August 25, 2015. "National Health Policy 2015-2030 (Política Nacional de Salud 2015-2030)".

[<https://www.msps.gov.py/dependencias/portal/adjunto/90c029-POLITICANACIONALDESALUD.pdf>]. Accessed January 2021.

[6] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 11 March 2020. "Main Page—Institutional". [<https://www.msps.gov.py/index.php>]. Accessed January 2021.

[7] Ministry of National Defense (Ministerio de Defensa Nacional). "Main page—Institutional (Paacutegina principal—institucional)." [<http://www.mdn.gov.py/>]. Accessed January 2021.

[8] National Commission in Response and Prevention to Biological Emergencies (Comisión Nacional de Prevención y Respuesta a Emergencias Biológicas) "Main Page—Institutional (Paacutegina principal—institucional)." [<http://www.mdn.gov.py/index.php/conapreb>]. Accessed January 2021.

#### 4.2.2c

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

Yes = 1, No = 0

**Current Year Score: 0**

There is insufficient evidence that Paraguay conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. The System of Information and Stockpile Control (Sistema de Información y Control de Inventarios Automatizado del Paraguay (SICIAP) allows the country's health system and officials from the Ministry of Health and Social Welfare (Ministerio de Salud y Bienestar Social) to review and get updates in the form of alerts to guarantee the supply of essential medical items [1,2]. Moreover, through the National Response Plan for the Eventual Entering of Coronavirus (Plan de Respuesta Nacional al Eventual Ingreso del Coronavirus) (COVID-19), SICIAP is responsible to ensure the supply to face the pandemic [3]. Furthermore, the National Policy for Medical Supplies (Política Nacional de Medicamentos) covers national issues such as strengthening the sanitary authorities and governance; securing the quality, efficiency, and security of medical supplies; securing availability of coverage of essential medical supplies; securing effective access to quality pharmaceutical services; securing the rational use of medical supplies; securing the availability of human resources and developing; and strengthening the information systems of the pharmaceutical sector [4]. However, there is insufficient evidence in the SICIAP, the Ministry of Public Health and Social Welfare, the Ministry of National Defense (Ministerio de la Defensa Nacional), and the National Commission of Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas) that Paraguay conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency [1,5,6,7].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). System of Information and Stockpile Control (Sistema de Información y Control de Inventarios Automatizado del Paraguay (SICIAP). Main Page—Institutional [<https://www.mspbs.gov.py/portal.php?url=dggies&page=1&q=>]. Accessed April 2021.

[2] Legislative Branch, Ministry of Public Health and Social Welfare (Poder Legislativo, Ministerio de Salud Pública y Bienestar Social). Resolution S.G.N number 1499. December 14, 2021. "Resolution S.G.N number 1499 on the List of Essential Medical Stock. (Resolución S.G.N número 1499 por la cual se aprueba el listado de insumos médicos esenciales para las regiones sanitarias, hospitales, centros de salud, puestos de salud y programas de salud del Ministerio de Salud Pública y Bienestar Social). [<https://www.mspbs.gov.py/dependencias/dggies/adjunto/f39bca-ResolucionN1499.pdf>]. Accessed April 2021.

[3] National Emergency Ministry (Secretaria de Emergencia Nacional). "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))." March 11, 2020. [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed April, 2021.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). August 25, 2015. National Health Policy 2015-2030 (Política Nacional de Salud 2015-2030); [<https://www.mspbs.gov.py/dependencias/portal/adjunto/90c029-POLITICANACIONALDESALUD.pdf>]. Accessed April 2021.

[5] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal - institucional)." [<http://www.mdn.gov.py/>]. Accessed April 2021.

[6] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional

(Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed April 2021.

[7] National Commission for the Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas). "Main Page—Institutional (Página principal—institucional)." [<http://www.mdn.gov.py/index.php/conapreb>]. Accessed April 2021.

## 4.2.3 Manufacturing and procurement for emergencies

### 4.2.3a

Does the country meet one of the following criteria?

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has a plan/agreement to leverage domestic manufacturing capacity to produce medical supplies (e.g., MCMs, medicines, vaccines, equipment, and personal protective equipment (PPE)) for national use during a public health emergency. Moreover, there is no evidence that suggests that Paraguay has a plan/mechanism to procure medical supplies for national use during a public health emergency. In preparation for the arrival of the SARS-CoV-2 virus to the country, Paraguay developed the National Response Plan for the Eventual Entering of Coronavirus (Plan de Respuesta Nacional al Eventual Ingreso del Coronavirus) (COVID-19). The plan does outline which individual government agencies are responsible for the different steps in identifying gaps in necessary supplies to respond to a SARS-CoV-2 outbreak and acquiring them. However, the plan does not mention plans or agreements to leverage manufacturing capacity or systems of procurement to obtain medical supplies nor medical countermeasures, either specifically for COVID-19 or as part of broader government capacity [1]. The Ministry of National Defense (Ministerio de Defensa Nacional), Ministry of Health and Social Welfare (Ministerio de Salud y Bienestar Social), and the National Commission for the Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas) do not document any agreement/plan to leverage domestic manufacturing capacity or a plan/mechanism to produce or procure medical supplies for national use during a public health emergency [2][3][4].

[1] National Emergency Ministry (Secretaría de Emergencia Nacional). "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))." March 11, 2020.

[<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed December 2020.

[2] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal - institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] National Commission for the Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas) "Main page—Institutional (Página principal—institucional)." [<http://www.mdn.gov.py/index.php/conapreb>]. Accessed December 2020.

#### 4.2.3b

Does the country meet one of the following criteria?

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

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has a plan/agreement to leverage domestic manufacturing capacity to produce laboratory equipment supplies (e.g., reagents, media) for national use during a public health emergency. Moreover, there is no evidence that suggests that Paraguay has a plan/mechanism to procure laboratory supplies (e.g., reagents, media) for national use during a public health emergency. In preparation for the arrival of the SARS-CoV-2 virus to the country, Paraguay developed the National Response Plan for the Eventual Entering of Coronavirus (Plan de Respuesta Nacional al Eventual Ingreso del Coronavirus) (COVID-19). The plan does outline which individual government agencies are responsible for the different steps in identifying gaps in necessary supplies to respond to a SARS-CoV-2 outbreak and acquiring these supplies. However, the plan does not mention plans or agreements to leverage manufacturing capacity or systems of procurement to obtain laboratory supplies, either specifically for COVID-19 or as part of a broader government capacity [1]. The Central Laboratory for Public Health (Laboratorio Central de Salud Pública), Ministry of Health and Social Welfare (Ministerio de Salud y Bienestar Social), Ministry of National Defense (Ministerio de Defensa Nacional), and the National Commission for the Response to Biological Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas) do not document any agreement/plan to leverage domestic manufacturing capacity or a plan/mechanism to procure laboratory supplies for national use during a public health emergency [2, 3, 4, 5].

[1] National Emergency Ministry (Secretaria de Emergencia Nacional). March 11, 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))."

[[https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-](https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf)

3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health—Vision and Mission (Laboratorio Central de Salud Pública &ndash; Visión y Misión)".

[<https://www.mspbs.gov.py/lcsp/vision-y-mision.html>]. Accessed January 2021.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

[5] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main-Institutional Page of the General Directorate of Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

## 4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

#### 4.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Paraguay has a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics, and diagnostics). However, Paraguay developed, with the United States Development Agency (USAID), the Guide for the Logistical System of Medical Supplies and Supplies (Guía del Sistema Logístico de Medicamentos e Insumos) in 2011 by the General Direction of Supplies Management in Health (Dirección General de Gestión de Insumos Estratégicos en Salud); however, it does not cover the issue of public health emergencies [1]. Furthermore, the Ministry of Health and Social Welfare (Ministerio de Salud y Bienestar Social), Ministry of National Defense (Ministerio de Defensa Nacional), and General Directorate for Health Surveillance (Dirección General de Vigilancia de la Salud) do not document any dispersing of medical countermeasures for use during a public health emergency [2][3][4].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). November 2010. "Paraguay: Guide to the Logistics System of Medicines and Supplies (Paraguay: Guía Del Sistema Logístico de Medicamentos e Insumos)". [<http://portal.mspbs.gov.py/dggies/wp-content/uploads/2014/11/Guia-Logistica-Medicam-Insum-Final-Jun2011.pdf>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[3] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)". [<http://www.mdn.gov.py/>]. Accessed December 2020.

[4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Institutional Page of the General Directorate for Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud)". [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

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

#### 4.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Paraguay has a public plan in place to receive health personnel from other countries to respond to a public health emergency. Act 3162 establishes an agreement between Paraguay and Chile to cooperate in the Health sector; the agreement includes cooperation in times of emergencies, catastrophes, and public calamity; however, the agreement does not elaborate any plan to receive health personnel [1]. Moreover, there is no further evidence on the websites of the Ministry of Health and Public Welfare (Ministerio de Salud Pública y Bienestar Social), Ministry of National

Defense (Ministerio de la Defensa Nacional), and the National Commission in Prevention to Response and Biological Emergencies [2][3][4].

[1] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 3162, March 26, 2007. "Law No. 3162 | Cooperation Agreement in Health Matters between the Republic of Paraguay and the Republic of Chile (Ley No. 3162 | Acuerdo de Cooperación en Materia de Salud entre la República del Paraguay y la República de Chile)". [<https://www.bacn.gov.py/leyes-paraguayas/286/ley-n-3162--aprueba-el-acuerdo-de-cooperacion-en-materia-de-salud-entre-el-gobierno-de-la-republica-del-paraguay-y-el-gobierno-de-la-republica-de-chile>]. Accessed December 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[3] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)". [<http://www.mdn.gov.py/>]. Accessed December 2020.

[4] Ministry of National Defense (Ministerio de Defensa Nacional). "National Commission for the Prevention of Biological Responses and Emergencies (Comisión Nacional de Prevención a Respuestas y Emergencias Biológicas)". [<http://www.mdn.gov.py/index.php/conapreb>]. Accessed December 2020.

## 4.4 HEALTHCARE ACCESS

### 4.4.1 Access to healthcare

#### 4.4.1a

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

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

**Current Year Score: 3**

2020

World Policy Analysis Center

#### 4.4.1b

**Access to skilled birth attendants (% of population)**

Input number

**Current Year Score: 95.5**

2016

WHO/World Bank/United Nations Children's Fund (UNICEF)

#### 4.4.1c

**Out-of-pocket health expenditures per capita, purchasing power parity (PPP; current international \$)**

Input number

**Current Year Score: 382.84**

2017

WHO Global Health Expenditure database

## 4.4.2 Paid medical leave

### 4.4.2a

**Are workers guaranteed paid sick leave?**

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

**Current Year Score: 2**

2020

World Policy Analysis Center

## 4.4.3 Healthcare worker access to healthcare

### 4.4.3a

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

Yes = 1, No = 0

**Current Year Score: 0**

There is no evidence that Paraguay 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. There is a Service Portfolio by Course Life and Levels of Care and Complexity elaborated by the Ministry of Public Health and Social Welfare, yet it does not mention prioritized healthcare who become sick as a result of responding to a public health emergency [1]. The Ministry of National Defense (Ministerio de la Defensa Nacional), Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), and Legislative Branch do not document prioritized attention to healthcare staff as a result to responding to a public health emergency [2,3,4].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). 2019. "Service Portfolio by Course Life and Levels of Care and Complexity (Cartera de Servicios por Curso de Vida y Niveles de Atención y Complejidad)". [<https://www.mspbs.gov.py/dependencias/portal/adjunto/876a1e-CARTERADESERVICIOS.pdf>]. Accessed December 2020.

[2] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal - institucional)". [<http://www.mdn.gov.py/>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal - institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] System of Legislative Information (Sistema de Información Legislativa). "Main Page—Institutional (Página principal— institucional)". [<http://silpy.congreso.gov.py/>]. Accessed December 2020.

## 4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

### 4.5.1 Communication with healthcare workers

#### 4.5.1a

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has a system in place for public health officials and healthcare workers to communicate during a public health emergency. In this sense, the National Response Plan to Fight Respiratory Viruses 2020 (Plan Nacional de Respuesta a Virus Respiratorios 2020), developed by the Ministry of Health and Social Welfare, "guarantees" that health workers will have access to updated information about COVID-19, but the document does not mention any system through which public health officials will communicate with healthcare workers [1]. Furthermore, the websites of The Ministry of Health and Social Welfare (Ministerio de Salud y Bienestar Social), Central Laboratory of Public Health (Laboratorio Central de Salud Pública), and the General Direction of Surveillance in Health (Dirección General de Vigilancia de la Salud) do not support the existence of a system for public health officials and healthcare workers to communicate during a public health emergency [2,3,4].

[1] National Emergency Ministry (Secretaria de Emergencia Nacional). March 11, 2020. "National Response Plan to Fight Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))." March 11, 2020. [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed December, 2020.

#### 4.5.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There is no evidence that Paraguay has a system for public health officials and healthcare workers to communicate during an emergency that encompasses healthcare workers in both the public and private sectors. The National Response Plan to Fight Respiratory Viruses 2020 (Plan Nacional de Respuesta a Virus Respiratorios 2020) includes proactive communication through reliable and effective channels; the guarantee that healthcare workers have access to reliable and updated information about COVID-19; and the use of strategies that involve the community to promote the adoption of preventive measure within communities [1]. However, the plan does not mention the inclusion of both healthcare workers from both the public and private sectors. Furthermore, the websites of the Ministry of Health and Social Welfare (Ministerio de Salud y Bienestar Social), Central Laboratory of Public Health (Laboratorio Central de Salud Pública), and General Direction of Surveillance in Health (Dirección General de Vigilancia de la Salud) do not show evidence supporting the existence of a system for public health officials and healthcare workers to communicate during an emergency that encompasses healthcare workers in both the public and private sectors [2,3,4].



- [1] National Emergency Ministry (Secretaria de Emergencia Nacional). March 11, 2020. "National Response Plan for Respiratory Viruses 2020 (Sars-Cov-2) (Plan Nacional de Respuesta a Virus Respiratorios 2020 (Sars-Cov-2))." [<https://www.mspbs.gov.py/dependencias/portal/adjunto/8f2b5d-3PLANNACIONALDERESPUESTAAVIRUSRESPIRATORIOS2020130320201.pdf>]. Accessed 3 December 2020.
- [2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—institutional (Página principal - institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.
- [3] The Central Laboratory of Public Health (Laboratorio Central de Salud Pública). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/lcsp>]. Accessed November 2020.
- [4] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Institutional Page of the General Directorate of Health Surveillance (Página principal-institucional de la Dirección General de Vigilancia de la Salud). [<http://www.vigisalud.gov.py/>]. Accessed December 2020.

## 4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

### 4.6.1 Healthcare associated infection (HCAI) prevention and control programs

#### 4.6.1a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is evidence that the national public health system of Paraguay is monitoring for and tracking the number of healthcare-associated infections (HCAI) that take place in healthcare facilities. The General Directorate for Health Surveillance (Dirección General de Vigilancia en Salud) has its own digital platform, SIDGVS, that collects data on healthcare-associated infections that take place in healthcare facilities, such as meningitis and pneumonia [1]. Moreover, the DGVS publishes a weekly update on the statistics of HCA infections in healthcare facilities to provide response operations with dynamic data [2]. Furthermore, Paraguay implemented a National Program of Infections Associated to Healthcare Attention by the Ministry of Public Health and Social Welfare. The program maintains surveillance on such infections [3].

[1] General Directorate for Health Surveillance (Dirección General de Vigilancia en Salud). 2020. "National System of Health Information (SINAIS) (Sistema Nacional de Información en Salud (SINAIS))." [<https://sidgvs.mspbs.gov.py>]. Accessed December 2020.

[2] General Directorate for Health Surveillance (Dirección General de Vigilancia en Salud). 2020. "Weekly Epidemiological Bulletin (Boletín Epidemiológico)". [<https://sidgvs.mspbs.gov.py>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "National Health Information System (Sistema Nacional de Información en Salud)". [<http://portal.mspbs.gov.py/digies/sistema-nacional-de-informacion-en-salud>]. Accessed December 2020.

## 4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

### 4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

#### 4.7.1a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is a national requirement in Paraguay for ethical review (e.g., from an ethics committee or via Institutional Review Board approval) before beginning a clinical trial. The Ethics Committee in Research (Comité de Ética en Investigación) is an autonomous, institutional, interdisciplinary organ, which is part of the Central Laboratory for Public Health (Laboratorio Central de Salud Pública). It was created to evaluate research protocols from a bioethical perspective. Its main function is to oversee the respect of the dignity, rights, security, and well-being of the participants/potential participants of a clinical trial [1]. Its activities are based on international agreements such as the Nuremberg Code, the World Medical Association Declaration of Helsinki, and the International Ethical Guidelines for Biomedical Research Involving Human Subjects [2].

[1] Central Laboratory of Public Health (Laboratorio Central de Salud Pública), "CEI Regulation (Regulación CEI)".

[<https://www.mspbs.gov.py/lcsp/reglamentocei.html>]. Accessed December 2020

[2] Chamorro, Gustavo. 2012. " Ethics Committee in Research (Comité de Ética en Investigación)". Public Health Magazine of Paraguay (Revista de Salud Pública de Paraguay) 2

[2]. [<http://revistas.ins.gov.py/index.php/rspp/article/view/40/20>]. Accessed December 2020.

#### 4.7.1b

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

Yes = 1 , No = 0

**Current Year Score: 0**

There are no expedited processes for approving clinical trials for unregistered medical countermeasures (MCM) to treat ongoing epidemics. The Regulation for the Committee on Ethical Research (Comité Ético de Investigación) does not contemplate expedited procedures for approving clinical trials for medical countermeasures to treat ongoing epidemics [1]. Other laws cover approval for the use of unregistered MCMs for emergencies, but not in a clinical trial setting. Sanitary code 836/80 states in Article 6, "donations of medicines made for charitable purposes or for social action and medications required in cases of catastrophe, emergencies or exceptional needs for the public health, thus qualified by the competent authority, will not require an evaluation process and registration, but they must be previously authorized by the national health authority and communicated to the Associations of Manufacturers and Drug Representatives" [2]. Moreover, Title III of the Sanitary Code, Article 137, states that, exceptionally and when there is a well-founded possibility of saving lives or decreasing suffering, doctors may employ medical countermeasures that are not registered or approved by the Ministry of Public Health and Social Welfare. To do so, doctors require prior authorisation of the patient or person responsible for the family and must notify the health ministry within 24 working hours of employment, reporting the medical reasons that

motivated its use [3].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). National Health Institute (Instituto Nacional de Salud). "Investigation Ethics Committee (Comite de etica de la Investigacion)".

[<https://www.msps.gov.py/dependencias/cnbioetica/adjunto/a03ba4-CEIINS.VersionFinal.pdf>]. Accessed December 2020.

[2] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Ley No. 1.119, October 10, 1997. "Of Health Products and Others (De productos para la salud y otros)".

[[http://www.cicad.oas.org/fortalecimiento\\_institucional/legislations/PDF/PY/ley\\_1119.pdf](http://www.cicad.oas.org/fortalecimiento_institucional/legislations/PDF/PY/ley_1119.pdf)]. Accessed December 2020.

[3] Republic of Paraguay (República de Paraguay). 1980. Law No. 836. "Sanitary Code (Codigo Sanitario)."

[[http://www.who.int/fctc/reporting/Paraguay\\_annex8\\_health\\_act.pdf](http://www.who.int/fctc/reporting/Paraguay_annex8_health_act.pdf)]. Accessed December 2020.

## 4.7.2 Regulatory process for approving medical countermeasures

### 4.7.2a

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is a government agency responsible for approving new medical countermeasures (MCMs) for humans. The National Directorate for Health Surveillance (Dirección Nacional de Vigilancia Sanitaria) in Article 5 establishes as its functions to "regulate and control the manufacture, elaboration, fractionation, quality control, distribution, prescription, dispensing, commercialization, representation, import, export, storage, rational use, price regime, information, advertising and the evaluation, authorization and registration of medicines for human use that contain or do not contain narcotic, psychotropic substances, precursors, drugs, chemical products, reagents and all other products for use and application in human medicine and products considered as cosmetics, household and related products" [1]. Furthermore, the regulatory agency in charge of approving new MCMs is the National Directorate for Health Surveillance (Dirección Nacional de Vigilancia Sanitaria).

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), General Directorate for Health Surveillance (Dirección General de Vigilancia Sanitaria). "Objectives and Functions (Objetivos y funciones)".

[<https://www.msps.gov.py/dnvs/objetivosyfunciones.html>]. Accessed December 2020.

### 4.7.2b

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

Yes = 1 , No = 0

**Current Year Score: 1**

There is an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. The Sanitary Code (Código Sanitario) under Article 6 states, "donations of medicines made for charitable purposes or for social action and medications required in cases of catastrophe, emergencies, or exceptional needs for the public health, thus qualified by the competent authority, will not require an evaluation process and registration, but they must be previously authorized by the national health authority and communicated to the Associations of Manufacturers and Drug Representatives" [1]. In addition, Title III of the Sanitary Code, Article 137, states that, exceptionally, and when there is a well-founded possibility of saving lives or decreasing suffering, doctors may employ medical countermeasures not registered or approved by the Ministry of Public Health and Social Welfare. To do so, doctors require prior authorization of

the patient or person responsible for the family and must notify the health ministry within 24 working hours of employment, reporting the medical reasons that motivated its use [2].

[1] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Ley No. 1.119, October 10, 1997. "Of Health Products and Others (De productos para la salud y otros)".

[[http://www.cicad.oas.org/fortalecimiento\\_institucional/legislations/PDF/PY/ley\\_1119.pdf](http://www.cicad.oas.org/fortalecimiento_institucional/legislations/PDF/PY/ley_1119.pdf)]. Accessed December 2020.

[2] Republic of Paraguay (República de Paraguay). 1980. Law No. 836. "Sanitary Code (Codigo Sanitario)."

[[http://www.who.int/fctc/reporting/Paraguay\\_annex8\\_health\\_act.pdf](http://www.who.int/fctc/reporting/Paraguay_annex8_health_act.pdf)]. Accessed December 2020.

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

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

#### 5.1.1 Official IHR reporting

##### 5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

#### 5.1.2 Integration of health into disaster risk reduction

##### 5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of epidemics and pandemics integrated into the national risk reduction strategy in Paraguay. The National Policy for Risk Management and Reduction (Política Nacional de Gestión y Reducción de Riesgos) does not explicitly present the mechanisms for coping with pandemics or epidemics. Nevertheless, the policy speaks of natural threats such as those that have their origin in the dynamics of the earth's crust, the atmosphere, and the biota, which can result in hydro-meteorological, geological, and biological threats. However, there is no focus or specialization in epidemic or pandemic matters, merely an overall view of risk mitigation mechanisms [1]. The National Implementation Plan of the Sendai

Framework 2018–2022 (Plan Nacional de Implementación del Marco de Sendai 2018-2022) mentions biological threats, such as bacteria, viruses, parasites, or poisonous animals and insects, poisonous plants, and mosquitoes as carrier agents of disease. However, the National Plan still fails to address pandemics and epidemics in particular [2]. Moreover, the websites of the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Central Laboratory of Public Health (Laboratorio Central de Salud Pública), and Ministry of National Defense (Ministerio de la Defensa Nacional) do not show evidence that the epidemics and pandemics are integrated into the national risk reduction strategy [3,4,5].

[1] National Emergency Secretariat (Secretaría de Emergencia Nacional). 2018. "National Policy for Risk Management and Reduction (Política Nacional de Gestión y Reducción de Riesgos)".

[[https://www.sen.gov.py/application/files/8015/9188/4586/Politica\\_Nacional\\_de\\_Gestion\\_y\\_Reduccin\\_de\\_Riesgos\\_\\_2018.pdf](https://www.sen.gov.py/application/files/8015/9188/4586/Politica_Nacional_de_Gestion_y_Reduccin_de_Riesgos__2018.pdf)]. Accessed December 7, 2020.

[2] National Emergency Secretariat (Secretaría de Emergencia Nacional). 2018. "National Implementation Plan of the Sendai Framework, 2018-2022 (Plan Nacional de Implementación del Marco de Sendai 2018-2022)".

[[https://www.sen.gov.py/application/files/8415/9188/1538/PNIMS\\_2018-2022.pdf](https://www.sen.gov.py/application/files/8415/9188/1538/PNIMS_2018-2022.pdf)]. Accessed December 7, 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main page—Institutional (Página principal—institucional)." [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] The Central Laboratory of Public Health (Laboratorio Central de Salud Pública). "Main Page—Institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/lcsp>]. Accessed November 2020.

[5] Ministry of National Defense (Ministerio de Defensa Nacional). "Main Page—Institutional (Página principal—institucional)." [<http://www.mdn.gov.py/>]. Accessed December 2020.

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

### 5.2.1 Cross-border agreements

#### 5.2.1a

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

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

**Current Year Score: 2**

There is evidence that Paraguay has cross-border agreements regarding public health emergencies. Under Law No. 3162 of March 2007, Paraguay has a cross-border agreement with the Government of Chile to co-ordinate in the surveillance, identification, and notification of, and response to, public health emergencies [1]. The country has also participated in regional agreements in the past, as in 2004, when, under Resolution No 08/03, it signed an agreement with Mercosur (Southern Common Market) member states for special surveillance of Severe Acute Respiratory Syndrome. Furthermore, Law No. 198, of July 1993, establishes an agreement on border control between the governments of Paraguay and Argentina to control both human and animal diseases such as a)ptose fever, malaria, yellow fever, dengue, chagas-mazza disease, venereal diseases and AIDS, leprosy, schistosomiasis, rabies, cholera, and other communicable diseases [2]. Moreover, in March 2019, agreements were approved in the regional organization, Forum for the Progress and Development of South America (PROSUR), among its member countries (including Paraguay) to contribute to improving the health of its populations by facing the challenges generated by demographic and epidemiological changes in their countries [3]. In the latest agreements related to the current pandemic due to COVID 19, PROSUR agreed to promote joint purchases of medical supplies to obtain better prices and facilitate the return of nationals to their respective territories [4].

- [1] Republic of Paraguay. Law No. 3162 of March 2007. "Co-operation Agreement in Matters of Health Between the Government of the Republic of Paraguay and the Government of the Republic of Chile (Acuerdo de Cooperación en Materia de Salud Entre el Gobierno de la República del Paraguay y el Gobierno de la República de Chile)". [<http://www.bacn.gov.py/leyes-paraguayas/286/ley-n-3162--aprueba-el-acuerdo-de-cooperacion-en-materia-de-salud-entre-el-gobierno-de-la-republica-del-paraguay-y-el-gobierno-de-la-republica-de-chile>]. Accessed September 2018.
- [2] Republic of Paraguay. Law No. 198 of July 1993. "Agreement on Border Health between Paraguay and Argentina (Convenio en Materia de Salud Fronteriza entre Paraguay y Argentina)". [<http://www.bacn.gov.py/leyes-paraguayas/2402/ley-n-198--aprueba-el-convenio-en-materia-de-salud-fronteriza-suscrito-entre-el-gobierno-de-la-republica-del-paraguay-y-el-gobierno-de-la-republica-argentina>]. Accessed September 2018.
- [3] Foro para el Progreso de América del Sur (PROSUR). March 22, 2019-2020. "Activity Report 2019-2020. Health Group (Reporte de Actividades 2019 - 2020. Grupo de Salud)". [[https://foroprosur.org/wp-content/uploads/2020/12/SALUD\\_Reporte\\_de\\_actividades\\_2019-2020.pdf](https://foroprosur.org/wp-content/uploads/2020/12/SALUD_Reporte_de_actividades_2019-2020.pdf)]. Accessed December 2020.
- [4] 20 Minutos News. March 16, 2020. "Latin American Countries Apply Measures against Coronavirus (Países latinoamericanos aplican medidas contra coronavirus)". [<https://www.20minutos.com/noticia/269407/0/paises-latinoamericanos-aplican-medidas-contra-coronavirus/>]. Accessed December 2020.

### 5.2.1b

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

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

**Current Year Score: 0**

There is insufficient evidence that Paraguay has cross-border agreements with neighboring countries, or as part of a regional group, with regard to animal health emergencies. While there are a number of agreements about surveillance, control, and trade, there is no evidence of agreements to cooperate in the case of an emergency. Act No. 1850 of December 2001 approves a co-operation agreement with Ecuador with regard to animal health, commerce of animals, genetic materials, and animal products from the agriculture, livestock, and fish stock sectors. Specifically, Article 1 states, "This Agreement, which is complementary to the Technical, Livestock and Fisheries Technical Co-operation Agreement of September 15, 1994, is intended to develop co-operation activities with the purpose of facilitating the trade of animals, products, and by-products of animal origin between the Parties, prioritizing precautionary measures of the sanitary condition of each one of them, through better control of the infectious, parasitic, and zoonotic diseases of animals" [1]. Moreover, the country has agreements as part of the World Trade Organization where the Agreement on the Application of Sanitary and Phytosanitary Measures was made, which refers to the application of regulations on food safety and sanitary control of animals and plants [2]. Similarly, the country has an Agreement on Animal Health between the Ministry of Agriculture and Livestock of the Republic of Paraguay and the Secretariat of Agriculture, Livestock, Rural Development, Fisheries, and Food of the United Mexican States (Ministerio de Agricultura y Ganadería de la República del Paraguay y la Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación de los Estados Unidos Mexicanos) through Act No. 3700 in order to establish the bases for the formalization of joint work programs in the field of animal health, for the import and export of live animals as well as products and by-products of animal origin in accordance with the provisions of the national legislation of each of the Parties and its zoosanitary situation [3]. Furthermore, Paraguay is also part of the Hemispheric Foot-and-Mouth Disease Eradication Program (PHEFA), under which it raised an animal health emergency in 2011 due to the detection of an outbreak of foot-and-mouth disease (FMD) in cattle from a property called Estancia Santa Helena [4]. However, the agreements do not speak as such of animal emergency issues but specifically of the regulations that must be followed. In the case of aftosa fever, a state of emergency was lifted, but there are deficiencies in the manner in which actions are taken with regard to animal health emergencies.

[1] Republic of Paraguay. Act No. 1850 of December 2001. "Approves the Agreement Complementary to the Agreement of Technical, Agricultural, Livestock, and Fisheries Cooperation between the Republic of Paraguay and the Republic of Ecuador, on Animal Health and Trade in Animals, Genetic Material, Products and By-products of Animal Origin, and Inputs for Livestock Use (Aprueba el acuerdo complementario al acuerdo de cooperación técnica, agrícola, ganadera y pesquera entre la república del paraguay y la república del ecuador, sobre sanidad animal y comercio de animales, material genético, productos y subproductos de origen animal e insumos de uso pecuario)". [<http://www.bacn.gov.py/leyes-paraguayas/658/ley-n-1850--aprueba-el-acuerdo-complementario-al-acuerdo-de-cooperacin-tnica-agrcola-ganadera-y-pesquera-entre-la-repblica-del-paraguay-y-la-repblica-del-ecuador-sobre-sanidad-animal-y-comercio-de-animales-material-gentico-productos-y-subproductos-de-origen-animal-e-insumos-de-uso-pecuario>]. Accessed January 2020.

[2] Republic of Paraguay. Law No. 1850 of December 2001. "Approves the Agreement Complementary to the Agreement of Technical, Agricultural, Livestock, and Fisheries Cooperation between the Republic of Paraguay and the Republic of Ecuador, on Animal Health and Trade in Animals, Genetic Material, Products and By-products of Animal Origin, and Inputs for Livestock Use (Aprueba el acuerdo complementario al acuerdo de cooperación técnica, agrícola, ganadera y pesquera entre la república del paraguay y la república del ecuador, sobre sanidad animal y comercio de animales, material genético, productos y subproductos de origen animal e insumos de uso pecuario)". [<http://www.bacn.gov.py/leyes-paraguayas/658/ley-n-1850--aprueba-el-acuerdo-complementario-al-acuerdo-de-cooperacin-tnica-agrcola-ganadera-y-pesquera-entre-la-repblica-del-paraguay-y-la-repblica-del-ecuador-sobre-sanidad-animal-y-comercio-de-animales-material-gentico-productos-y-subproductos-de-origen-animal-e-insumos-de-uso-pecuario>]. Accessed September 2018.

[2] World Trade Organization. "Agreement on the Application of Sanitary and Phytosanitary Measures (Acuerdo sobre la aplicación de medidas sanitarias y fitosanitarias)". [[https://www.wto.org/spanish/tratop\\_s/sps\\_s/spsagr\\_s.htm](https://www.wto.org/spanish/tratop_s/sps_s/spsagr_s.htm)]. Accessed December 2020.

[3] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 3700, April 16, 2019. "Law No. 3700 | Approves agreement on animal health between Paraguay and the United Mexican States (Ley No. 3700 | Aprueba acuerdo en materia de sanidad animal entre Paraguay y los Estados Unidos Mexicanos)". [<https://www.bacn.gov.py/leyes-paraguayas/1377/ley-n-3700-aprueba-el-acuerdo-en-materia-de-sanidad-animal-entre-el-ministerio-de-agricultura-y-ganaderia-de-la-republica-del-paraguay-y-la-secretaria-de-agricultura-ganaderia-desarrollo-rural-pesca-y-alimentacion-de-los-estados-unidos-mexicanos>]. Accessed December 2020.

[4] Pan American Health Organization (PAHO), World Health Organization (WHO). ""Animal Health Emergency for Foot-and-Mouth Disease—Paraguay 2011 (Emergencia Sanitaria Animal por Fiebre Aftosa - Paraguay 2011)"". [[https://www.paho.org/par/index.php?option=com\\_content&view=article&id=560:emergencia-sanitaria-animal-fiebre-aftosa&Itemid=258](https://www.paho.org/par/index.php?option=com_content&view=article&id=560:emergencia-sanitaria-animal-fiebre-aftosa&Itemid=258)]. Accessed December 2020.

## 5.3 INTERNATIONAL COMMITMENTS

### 5.3.1 Participation in international agreements

#### 5.3.1a

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

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

**Current Year Score: 2**

2021

Biological Weapons Convention

### 5.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

Biological Weapons Convention

### 5.3.1c

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

### 5.3.1d

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

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

Current Year Score: 2

2021

Biological Weapons Convention

## 5.3.2 Voluntary memberships

### 5.3.2a

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

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

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

Current Year Score: 0



2021

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

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

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

#### 5.4.1a

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

#### 5.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

2021

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

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

#### 5.4.2a

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

Yes = 1, No = 0

Current Year Score: 1

2021

OIE PVS assessments

### 5.4.2b

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

Yes = 1, No = 0

Current Year Score: 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

There is evidence that Paraguay has allocated national funds to improve capacity to address epidemic threats within the Last three years. In June 2018, Paraguay inaugurated a new facility that includes a Biosecurity Modular Laboratory Level 3 (Laboratorio Tipo Modular de Bioseguridad Nivel 3) capable of national response against Ebola outbreaks and other epidemic diseases [1]. Furthermore, the government invested 40% of the \$1.3 million USD it received using national funds [2]. The new laboratory also comes with a thermal cycler, which allows the use of the polymerase chain reaction (PCR) testing technique [2,3].

[1] Pan American Health Organization (PAHO), World Health Organization (WHO). "PAHO/WHO delivered equipment for the Central Laboratory and for the Alberdi District Hospital (OPS/OMS entregó equipamiento para el Laboratorio Central y para el Hospital Distrital de Alberdi). [https://www.paho.org/par/index.php?option=com\_content&view=article&id=1635:ops-oms-entregó-equipamiento-para-el-laboratorio-central-y-para-el-hospital-distrital-de-alberdi&Itemid=212] Accessed January 2020.

[2] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). June 28, 2018. "Another Milestone in Public Health: Paraguay already has its Biosafety III Laboratory (Otro hito en Salud Pública: Paraguay ya cuenta con su laboratorio de Bioseguridad III)". [https://www.mspbs.gov.py/portal/15235/otro-hito-en-salud-publica-paraguay-ya-cuenta-con-su-laboratorio-de-bioseguridad-iii.html]. Accessed January 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Service Portfolio by Life Course and Levels of Care and Complexity (Cartera de Servicios por Curso de vida y Niveles de Atención y Complejidad) [https://www.mspbs.gov.py/dependencias/portal/adjunto/876a1e-CARTEADESERVICIOS.pdf] target="\_blank">[https://www.mspbs.gov.py/dependencias/portal/adjunto/876a1e-CARTEADESERVICIOS.pdf] target="\_blank">https://www.mspbs.gov.py/dependencias/portal/adjunto/876a1e-CARTEADESERVICIOS.pdf]. Accessed December 2020.

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

### 5.5.2a

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

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

Current Year Score: 0

2021

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

### 5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

## 5.5.3 Financing for emergency response

### 5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence of an identified special emergency public financing mechanism and funds which Paraguay can access in the face of a public health emergency. The International Monetary Fund (IMF) has a Catastrophe Containment and Relief Trust (CCRT) available to member countries [1]. Under the said trust, the IMF "approved a disbursement in the amount of SDR 201.4 million (US\$ 274 million, 100 percent of quota) for Paraguay under the Rapid Financing Instrument (RFI)" [2]. Paraguay also drafted Act No. 6524 on Health Emergency due to COVID-19 (Ley de Emergencia Sanitaria Covid-19). However, Act No. 6524 was not in place before the COVID-19 pandemic and there is no evidence that it will continue once the pandemic is over [3]. Furthermore, Paraguay is not eligible for IDA [4].

[1] International Monetary Fund. December 1, 2020. "COVID-19 Financial Assistance and Debt Service Relief".

[<https://www.imf.org/en/Topics/imf-and-covid19/COVID-Lending-Tracker>]. Accessed December 2020.

[2] International Monetary Fund. April 21, 2020. "IMF Executive Board Approves a US\$ 274 Million Emergency Support to Paraguay to Address the COVID-19 Pandemic" [https://www.imf.org/en/News/Articles/2020/04/21/pr20181-paraguay-imf-executive-board-approves-us-emergency-support-address-covid-19-pandemic]. Accessed December 2020.

[3] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 6524, March 27, 2020. "Food Kits—Law No. 6524 that Declares a State of Emergency in Paraguay, in the Face of the Covid-19 Pandemic (Kits Alimenticios—Ley Nº 6524 que declara estado de emergencia en Paraguay, ante la pandemia del Covid-19)". [https://www.bacn.gov.py/conoce-tu-ley/9154/kits-alimenticios-ley-n-6524-ley-nro-6524-que-declara-estado-de-emergencia-en-paraguay-ante-la-pandemia-del-covid-19]. Accessed December 2020.

[4] World Bank Group, International Development Association (IDA). [http://ida.worldbank.org/about/borrowing-countries]. Accessed December 2020.

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

### 5.5.4a

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

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

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

**Current Year Score: 0**

There is insufficient evidence that the president of Paraguay and other senior leaders have made a public commitment to improve domestic capacity to address epidemic threats. In addition, there is no evidence that Paraguay's senior leaders have made public commitments to support other countries to improve capacity to improve epidemic threats by providing financing or support. However, there is evidence of support for response efforts. The president of Paraguay Mario Abdo Benítez designed a contingency plan that included \$1.6 billion USD in a credit line to fight COVID-19, emphasizing that "...the contingency project for has been prepared by the Ministry of Health, and it includes doubling the capacity of intensive care therapy [...] and improved equipment" [1]. President Abdo also announced the construction of two new hospitals with a capacity of 200 beds in response to COVID-19 [2]. Finally, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social) and the Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores) provide no evidence of public statements that Paraguay has committed to provide support to other countries to improve their capacity to address epidemic threats [3,4].

[1] Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores). "Official Portal (Portal Oficial)".

[https://www.mre.gov.py/index.php/noticias-de-embajadas-y-consulados/ejecutivo-plantea-linea-de-credito-de-usd-1600-millones-para-garantizar-recursos-salud-y-recuperar-la-economia].

[2] Xinhua Español (Xinhua Spanish). March 25, 2020. "Government of Paraguay Begins Construction of Two Contingency Hospitals for Patients with COVID-19 (Gobierno de Paraguay inicia construcción de dos hospitales de contingencia para pacientes con COVID-19). [http://spanish.xinhuanet.com/2020-03/25/c\_138914724.htm]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—Institutional (Página principal - institucional)." [https://www.mspbs.gov.py/index.php]. Accessed December 2020.

[4] Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores). "Main page—Institutional (Página Principal—Institucional)." [https://www.mre.gov.py/]. Accessed December 2020.

### 5.5.4b

Is there evidence that the country has, in the past three years, either:

- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

**Current Year Score: 1**

There is evidence that Paraguay has requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats, but no evidence that it has provided other countries with support to improve their capacity to address epidemic threats. According to the Global Health Security Tracking Atlas, Paraguay obtained \$70.95 million USD from donors to address epidemic threats between 2014 and 2020 [1]. Moreover, in April 2020, the International Monetary Fund (IMF) approved an emergency fund of \$274 million USD to contain the epidemic and mitigate the impact on the economy. Furthermore, Paraguay has adopted an emergency package that will increase spending on healthcare, expand the social safety net, and provide emergency loans for small businesses [2]. Finally, the Global Health Security Tracking Atlas, the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), and the Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores) do not document or publish evidence that Paraguay has provided other countries with financing or technical support to improve capacity to address epidemic threats [1,3,4].

[1] Georgetown Global Health Security Tracking. "Paraguay Profile".[<https://tracking.ghscosting.org/details/187/recipient>]. Accessed January 2020.

[2] International Monetary Fund. 2020. "IMF Executive Board Approves US\$274 Million Emergency Support for Paraguay to Face the COVID-19 Pandemic". [<https://www.imf.org/es/News/Articles/2020/04/21/pr20181-paraguay-imf-executive-board-approves-us-emergency-support-address-covid-19-pandemic>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—institutional (Página principal - institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

[4] Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores). "Main Page—institutional (Página principal - institucional)".[<https://www.mre.gov.py/>]. Accessed December 2020.

### 5.5.4c

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

Yes = 1 , No = 0

**Current Year Score: 1**

2021

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

## 5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

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

#### 5.6.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Paraguay 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. Under Law No. 3162 of March 2007, Paraguay and Chile collaborate in surveillance efforts, prioritizing diseases that represent a risk for one or both countries [1]. In addition, the Paraguayan government is also party to an agreement between Mercosur Southern Common Market member states for regional co-operation in security efforts, under Law No. 3678 of January 2009 [2]. However, neither of the agreements speak of sharing epidemiological data. Furthermore, there is no evidence via the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), the Ministry of Agriculture and Livestock (Ministerio de Agricultura y ganadería), and Central Laboratory of Public Health (Laboratorio Central de Salud Pública) that Paraguay shares genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries [3,4,5]. However, there is evidence of clinical data sharing for plant and animal resources. Moreover, Paraguay shares information regarding genetic resources for The State of the World's Aquatic Genetic Resources for Food and Agriculture of the Food and Agriculture Organization (FAO) [5]. Under Act No. 1850, Paraguay has an international agreement for sharing animal genetical data with Ecuador, which was implemented in 2020 [6,7].

[1] Republic of Paraguay. Law No. 3162 of March 2007. "Co-operation Agreement in Matters of Health Between the Government of the Republic of Paraguay and the Government of the Republic of Chile (Acuerdo de Cooperación en Materia de Salud Entre el Gobierno de la República del Paraguay y el Gobierno de la República de Chile)".

[<http://www.bacn.gov.py/leyes-paraguayas/286/ley-n-3162--aprueba-el-acuerdo-de-cooperacion-en-materia-de-salud-entre-el-gobierno-de-la-republica-del-paraguay-y-el-gobierno-de-la-republica-de-chile>]. Accessed December 2020.

[2] Republic of Paraguay. Law No. 3678 of January 2009. "Framework Agreement on Cooperation in the Area of Regional Security (Aprueba acuerdo Marco sobre Cooperación en Materia de Seguridad Regional)." [<http://www.bacn.gov.py/leyes-paraguayas/1858/ley-n-3678-aprueba-el-acuerdo-marco-sobre-cooperacion-en-materia-de-seguridad-regional-entre-los-estados-partes-del-mercosur-y-la-republica-de-bolivia-la-republica-de-chile-la-republica-del-ecuador-la-republica-del-peru-y-la-republica-bolivariana-de-venezuela>]. Accessed December 2020.

[3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page —Institutional (Página principal - institucional)." [<https://www.msps.gov.py/index.php>]. Accessed December 2020.

[4] Ministry of Agriculture and Livestock (Ministerio de Agricultura y Ganadería) "Main Page—Institutional (Página principal - institucional) [<http://www.mag.gov.py/>] Accessed December 2020.

[5] Central Laboratory for Public Health (Laboratorio Central de Salud Pública). "Main Institutional Page (Página Institucional)." [<http://vigisalud.gov.py/>]. Accessed December 2020

[6] Food and Agriculture Organization of the United Nations (Organización de las Naciones Unidas de la Alimentación y la Agricultura, ONUAA). December 2018. "COMMISSION ON GENETIC RESOURCES FOR FOOD AND FARMING (COMISIÓN DE RECURSOS GENÉTICOS PARA LA ALIMENTACIÓN Y LA AGRICULTURA)". [<http://www.fao.org/3/my593es/my593es.pdf>]. Accessed December 2020.

[7] Legislative Branch, Congress of the Nation of Paraguay (Poder Legislativo, Congreso de la Nación). Law No. 1850, December 31, 2013. "Law No. 1850 | Approves the Complementary Agreement on Agricultural, Livestock and Fisheries Technical Cooperation (Ley N° 1850 | Aprueba el acuerdo Complementario de Cooperación Técnica Agrícola, Ganadera y Pesquera) [<https://www.bacn.gov.py/leyes-paraguayas/658/ley-n-1850-aprueba-el-acuerdo-complementario-al-acuerdo-de-cooperacion-tecnica-agricola-ganadera-y-pesquera-entre-la-republica-del-paraguay-y-la-republica-del-ecuador-sobre-sanidad-animal-y-comercio-de-animales-material-genetico-productos-y-subproductos-de-origen-animal-e-insumos-de-uso-pecuario>]. Accessed December 2020.

[8] Ministry of Foreign Affairs (Ministerio de Relaciones Exteriores). January 15, 2020. "Paraguay manages to export bovine genetic material to Ecuador (Paraguay logra exportar material genético bovino al Ecuador)". [<https://www.mre.gov.py/index.php/noticias-de-embajadas-y-consulados/paraguay-logra-exportar-material-genetico-bovino-al-ecuador-1>]. Accessed December 2020.

### 5.6.1b

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

Yes = 0, No = 1

**Current Year Score: 1**

There is no public evidence that Paraguay has not shared samples of influenza in accordance with the pandemic influenza preparedness (PIP) framework in the past two years. The Influenza Virus Traceability Mechanism 2.0 of the World Health Organization's (WHO) Global Influenza Surveillance and Response System (GISRS) shows that in the last year, Paraguay shared 47 original specimens, 48 viruses, and one nucleic acid in 82 shipments [1]. No further evidence was found via media sources.

[1] World Health Organization (WHO). "Launch of Influenza Virus Traceability Mechanism IVTM2—June 2020". [<https://extranet.who.int/ivtm2>]. Accessed December 2020.

### 5.6.1c

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

Yes = 0, No = 1

**Current Year Score: 1**

There is no evidence suggesting that Paraguay has not shared pathogen samples during a pandemic outbreak in the last two years via the Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social), Ministry of Agriculture and Livestock (Ministerio de Agricultura y ganadería), Central Laboratory of Public Health (Laboratorio Central de Salud Pública), or Ministry of Defense [1,2,3,4]. Furthermore, media evidence does not suggest that the government does not share pathogen samples, including those for COVID-19 [5,6,7,8].

[1] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Main Page—institutional (Página principal—institucional)". [<https://www.mspbs.gov.py/index.php>]. Accessed December 2020.

- [2] Ministry of Agriculture and Cattle (Ministerio de Agricultura y Ganadería). "Main Page—Institutional (Página principal—institucional)". [<http://www.mag.gov.py/>]. Accessed December 2020.
- [3] Ministry of Public Health and Social Welfare (Ministerio de Salud Pública y Bienestar Social). "Central Laboratory of Public Health (Laboratorio Central de Salud Pública)". [<https://www.mspbs.gov.py/lcsp>]. Accessed December 2020.
- [4] Ministry of National Defense (Ministerio de Defensa Nacional). "Main page—Institutional (Página principal - institucional)". [<http://www.mdn.gov.py/>]. Accessed December 2020.
- [5] ABC en el este. "Main page—Institutional (Página principal - institucional)". [[www.abc.com.py](http://www.abc.com.py)]. Accessed December 2020.
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## 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: 1

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: 28

2020

Transparency International

### **6.1.1f**

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

Input number

Current Year Score: 2

2020

Economist Intelligence

### **6.1.1g**

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

Input number

Current Year Score: 2

2020

Economist Intelligence

## 6.1.2 Orderly transfers of power

### 6.1.2a

**How clear, established, and accepted are constitutional mechanisms for the orderly transfer of power from one government to another?**

Very clear, established and accepted = 4, Clear, established and accepted = 3, One of the three criteria (clear, established, accepted) is missing = 2, Two of the three criteria (clear, established, accepted) are missing = 1, Not clear, not established, not accepted = 0

**Current Year Score: 1**

2021

Economist Intelligence

## 6.1.3 Risk of social unrest

### 6.1.3a

**What is the risk of disruptive social unrest?**

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

**Current Year Score: 2**

2021

Economist Intelligence

## 6.1.4 Illicit activities by non-state actors

### 6.1.4a

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

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

**Current Year Score: 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: 4**

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: 3**

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: 4**

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: 94.7

2016

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: 0.52

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: 0.3

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**

The share of employment in the informal sector in Paraguay is greater than 50%. According to a report by the International Labor Organization (ILO), "Critical Segments of Informal Employment in Paraguay (Segmentos Críticos de la Informalidad Laboral en Paraguay)" of 2018, 7 out of every 10 workers are in the informal sector in Paraguay [1]. Moreover, according to the Permanent Survey of Households (Encuesta Permanente de Hogares Continua) of the General Directorate for Statistics, Surveys, and Census (Dirección General de Estadística, Encuestas y Censos), in the third trimester of 2020, Paraguay had 1,543,147 informal workers in non-agricultural jobs among a population of 2,538,129, which accounts for 60.8% of informality in non-agricultural jobs (which is the method used by the survey) [2].

[1] International Labor Organization (ILO). 2018. "Critical Segments of Informal Employment in Paraguay (Segmentos Críticos de la Informalidad Laboral en Paraguay)". [[https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-santiago/documents/publication/wcms\\_637133.pdf](https://www.ilo.org/wcmsp5/groups/public/---americas/---ro-lima/---sro-santiago/documents/publication/wcms_637133.pdf)]. Accessed December 2020.

[2] General Directorate for Statistics, Surveys and Census (Dirección General de Estadística, Encuestas y Censos). 2020.

"Permanent Survey of Households (Encuesta Permanente de Hogares Continua)".

[[https://www.dgeec.gov.py/Publicaciones/Biblioteca/documento/94ad\\_Boletin20trimestral203er20trimestre202020.pdf](https://www.dgeec.gov.py/Publicaciones/Biblioteca/documento/94ad_Boletin20trimestral203er20trimestre202020.pdf)]. Accessed December 2020.

### 6.2.3c

#### Coverage of social insurance programs (% of population)

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

**Current Year Score: 1**

2016, or latest available

World Bank; Economist Impact calculations

## 6.2.4 Public confidence in government

### 6.2.4a

#### Level of confidence in public institutions

Input number

**Current Year Score: 1**

2021

Economist Intelligence Democracy Index

## 6.2.5 Local media and reporting

### 6.2.5a

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

Input number

**Current Year Score: 2**

2021

Economist Intelligence Democracy Index

## 6.2.6 Inequality

### 6.2.6a

**Gini coefficient**

Scored 0-1, where 0=best

**Current Year Score: 0.46**

Latest available.

World Bank; Economist Impact calculations

## 6.3 INFRASTRUCTURE ADEQUACY

### 6.3.1 Adequacy of road network

#### 6.3.1a

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

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

**Current Year Score: 1**

2021

Economist Intelligence

### 6.3.2 Adequacy of airports

#### 6.3.2a

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

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

**Current Year Score: 2**

2021

Economist Intelligence

### 6.3.3 Adequacy of power network

#### 6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 2

2021

Economist Intelligence

## 6.4 ENVIRONMENTAL RISKS

### 6.4.1 Urbanization

#### 6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 61.88

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: -9.04

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: 74.13

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: 447.1

2019

WHO

#### 6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 6.62

2019

World Bank

#### 6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 12.8

2018

World Bank



### **6.5.1e**

#### **Prevalence of obesity among adults**

Input number

Current Year Score: 20.3

2016

WHO

## **6.5.2 Access to potable water and sanitation**

### **6.5.2a**

#### **Percentage of homes with access to at least basic water infrastructure**

Input number

Current Year Score: 99

2017

UNICEF; Economist Impact

### **6.5.2b**

#### **Percentage of homes with access to at least basic sanitation facilities**

Input number

Current Year Score: 89.78

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: 409.29

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