Latvia

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 2

Latvia has a publicly available national AMR plan that covers measures to conduct surveillance, detection, and reporting of priority AMR pathogens.

On 14 August 2019, the Cabinet of Ministers approved the "Antimicrobial resistance control and cautious use of antibiotics plan 'One Health' for 2019-2020". The plan was developed by the Ministry of Health in cooperation with the Ministry of Agriculture, and covers the areas of both public and animal health [1]. The plan is publicly available on the websites of the Ministry of Health and Ministry of Agriculture [2, 3]. The plan is not , however, available on the website of the Riga East University Hospital, which is the National Reference Laboratory in the field of epidemiological safety, nor on the website of the National Health Service [4, 5]. The plan lays out steps to improve surveillance, detection and reporting of AMR in the areas of public and animal health, and to develop AMR monitoring in the environment (soil, waterways) with set timelines for completing each of the identified steps. Additionally, the plan foresees enhancement of information exchange between the sectors and strengthening institutional cooperation; on improving AMR-related education of medical and veterinary specialists; on raising the public awareness about AMR both in the field of public and animal health. This plan is an interim document until 2021, when a more long-term policy will be developed for 2021-2023. [1].

Latvia also has a national AMR plan dedicated to the agricultural sector "National Action Plan for restriction of antimicrobial resistance and a cautious application of antimicrobials in the area of animal health" to ensure regular AMR monitoring of zoonotic pathogens. Monitoring is carried out by the Food and Veterinary Service [6].

[1] Ministry of Health of the Republic of Latvia. 14 August 2019. "Antimicrobial resistance control and cautious use of antibiotics plan "One Health" for years 2019-2020 (Antimikrobiālās rezistences ierobežošanas un piesardzīgas antibiotiku lietošanas plāns "Viena veselība" 2019-2020)". [http://polsis.mk.gov.lv/api/file/file2108092236513336657.docx]. Accessed 4 August 2020.
[2] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/attistibas_planosanas_dokumenti1/]. Accessed 14 October 2020.
[3] Ministry of Agriculture of the Republic of Latvia. "Antimicrobial resistance". [https://zm.gov.lv/veterinarija/statiskas-lapas/antimikrobiala-rezistence?nid=2573]. Accessed 14 October 2020.
[4] Riga East University Hospital. "National Reference Laboratory". [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 14 October 2020.
[5] National Health Service of Latvia. "Normative Documents". [http://www.vmnvd.gov.lv/lv/1076-normativie-akti]. Accessed 14 October 2020.

1.1.1b

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

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

Current Year Score: 2

Latvia has a laboratory system that tests for all priority AMR pathogens. The Joint External Evaluation report for Latvia, conducted in May 2017, scores the country as a 4 on Indicator P.3.2 (Surveillance of infections caused by AMR pathogens), which indicates that "designated sentinel sites have conducted surveillance of infections caused by all priority AMR pathogens for at least one year" [1, 2].

Riga East University Hospital is the national reference laboratory in the field of epidemiological safety, providing confirmatory testing for the national network of laboratories conducting antimicrobial susceptibility testing [3, 4]. Sixteen laboratories have the capacity to test for all priority AMR pathogens, and those laboratories report routine data to Latvia's Center for Disease Prevention and Control (CDPC), which reports them to the European Antimicrobial Resistance Surveillance Network (EARS-net). Sentinel-based surveillance is, however, only used for influenza-like illnesses (ILI), other respiratory diseases, and pneumonia, with 11 hospitals enrolled in the sentinel system [1]. There is no publicly available, comprehensive list of the laboratories that can test for AMR pathogens or a list of hospitals enrolled in the sentinel system on the websites of the Ministry of Health or the CDPC [5, 6].

[1] World Health Organisation (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 6 August 2020.
[2] World Health Organisation (WHO). "Joint External Evaluation Tool: International Health Regulations (2005)". [http://apps.who.int/iris/bitstream/handle/10665/204368/9789241510172_eng.pdf;jsessionid=E6458699B4219EE890C4D1AEBCC793EB?sequence=1]. Accessed 6 August 2020.
[3] Ministry of Health of the Republic of Latvia. National Reference Laboratory. [http://www.vm.gov.lv/lv/nozare/nacionala_references_laboratorija_epidemiologiskas_drosibas_/] Accessed 3 September 2018.
[4] Riga East University Hospital. National Microbiology Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 6 August 2020.
[5] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/]. Accessed 6 August 2020.
[6] Centre for Disease Prevention and Control of Latvia. [https://www.spkc.gov.lv]. Accessed 6 August 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Latvia does not conduct environmental detection or surveillance activities for antimicrobial residues or AMR organisms. On 14 August 2019, the Cabinet of Ministers approved the national AMR plan "Antimicrobial resistance control and cautious use of antibiotics plan 'One Health' for 2019-2020". The plan has been developed by the Ministry of Health in cooperation with the Ministry of Agriculture, and currently covers only the areas of public and animal health.

The plan clearly states that Latvia does not yet conduct monitoring of AMR in the environment and underlines the

importance of commencing the collection and reporting of environmental AMR data.

The plan stipulates that to establish environmental monitoring of AMR organisms, the Ministry of Environmental Protection and Regional Development (VARAM) should be involved in the work of the Commission for the Control of Antimicrobial Resistance. The deadline for onboarding VARAM was set to be the second half of 2019 [1]. As of 15 July 2020, there are no VARAM representatives or environmental experts in the Commission [2]. The VARAM website contains no information about the ministry being involved in AMR monitoring [3].

[1] Ministry of Health of the Republic of Latvia. 14 August 2019. "Antimicrobial resistance control and cautious use of antibiotics plan "One Health" for years 2019-2020 (Antimikrobiālās rezistences ierobežošanas un piesardzīgas antibiotiku lietošanas plāns "Viena veselība" 2019-2020)". [http://polsis.mk.gov.lv/api/file/file2108092236513336657.docx]. Accessed 6 August 2020.
[2] Ministry of Health of the Republic of Latvia. 15 July 2020. "Commission for the Control of Antimicrobial Resistance". [https://www.vm.gov.lv/lv/aktualitates/sabiedribas_lidzdaliba/antimikrobialas_rezistences_ierobezosanas_komisija/]. Accessed 6 August 2020.
[3] Ministry of Environmental Protection and Regional Development of the Republic of Latvia. [https://www.varam.gov.lv/lv]. Accessed 6 August 2020.

1.1.2 Antimicrobial control

1.1.2a

Is there national legislation or regulation in place requiring prescriptions for antibiotic use for humans?
Yes = 2 , Yes, but there is evidence of gaps in enforcement = 1 , No = 0

Current Year Score: 1

There are national legislation/regulations in place requiring prescriptions for antibiotic use for humans, but there is evidence of gaps in enforcement.

The Joint External Evaluation report for Latvia, conducted in May 2017, states that antimicrobial drugs are prescription-only medicines for both humans and animals in Latvia [1]. Latvia's Pharmaceutical Law (adopted in 1997, last amended in 2020) does not directly indicate that antibiotics are prescription medicines, but provides a description of medicinal products that are to be sold only with a prescription [2]. Medicines with active ingredients belonging to one of 5 most commonly used antibiotic groups in Latvia (Penicillins, Tetracyclines, Macrolides, lincosamides and streptogramins, Sulfonamides and trimethoprim, Quinolones) are all prescription-only, according to Latvia's Medicinal Product Register [3, 4]. However, there is evidence that people can buy antibiotics without a prescription.

The Special Eurobarometer 445 Antimicrobial Resistance statistical data of 2016, republished in the national AMR plan for 2019-2020, reports that 9% of respondents in Latvia obtained their last course of antibiotics from a pharmacy without a prescription [5, 6]. Additionally, the AMR plan highlights the lack of information about antibiotics as one of the key challenges for their overuse and misuse in Latvia [5].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 6 August 2020.
[2] Parliament of the Republic of Latvia. 8 May 1997. "Pharmaceutical Law (Farmācijas likums)". [https://likumi.lv/ta/id/43127-farmacijas-likums]. Accessed 6 August 2020.

[3] European Center for Disease Prevention and Control. 18 November 2019. "Antimicrobial consumption - Annual Epidemiological Report for 2018". [https://www.ecdc.europa.eu/sites/default/files/documents/Antimicrobial-consumption-EU-EEA.pdf]. Accessed 6 August 2020.
[4] Medicinal Product Register of Latvia. [https://www.zva.gov.lv/zvais/zalu-registrs/?&lang=lv]. Accessed 6 August 2020.
[5] Ministry of Health of the Republic of Latvia. 14 August 2019. "Antimicrobial resistance control and cautious use of antibiotics plan "One Health" for years 2019-2020 (Antimikrobiālās rezistences ierobežošanas un piesardzīgas antibiotiku lietošanas plāns "Viena veselība" 2019-2020)". [http://polsis.mk.gov.lv/api/file/file2108092236513336657.docx]. Accessed 6 August 2020.
[6] European Commission. June 2016. "Special Eurobarometer 445 Antimicrobial Resistance". [https://ec.europa.eu/health/amr/sites/amr/files/eb445_amr_generalreport_en.pdf]. Accessed 6 August 2020.

1.1.2b

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

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

Current Year Score: 2

There are national legislation/regulations in place requiring prescriptions for antibiotic use for humans, and there is no evidence of gaps in enforcement. The Joint External Evaluation report for Latvia, conducted in May 2017, states that antimicrobial drugs are prescription-only medicines for both humans and animals in Latvia [1]. Regulation No.600 on Procedures for the Authorization of Veterinary Medicinal Products (adopted 2006, last amended 2016) does not directly indicate that antibiotics are prescription medicines, but provides a description of medicinal products that are to be sold only with a prescription [2]. Veterinary Medicines with active ingredients belonging to one of 5 most commonly used antibiotic classes in Latvia (Penicillins, Tetracyclines, Aminoglycosides, Pleuromutilins, Macrolides) all are prescription-only, according to the Veterinary medicinal product register [3, 4]. The "Antimicrobial resistance control and cautious use of antibiotics plan 'One Health' for 2019-2020", which covers the areas of both public and animal health, does not report on any evidence that antimicrobial veterinary drugs can be obtained without a prescription [5]. Such evidence is also absent in the local media.

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 6 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.600 of 11 August 2006. "Procedures for the Authorization of Veterinary Medicinal Products (Veterināro zāļu reģistrēšanas kārtība)". [https://likumi.lv/ta/id/141448-veterinaro-zalu-registresanas-kartiba]. Accessed 6 August 2020.
[3] European Medicines Agency. October 2019. "Sales of veterinary antimicrobial agents in 31 European countries in 2017: Trends from 2010 to 2017". [https://www.ema.europa.eu/en/documents/report/sales-veterinary-antimicrobial-agents-31-european-countries-2017_en.pdf]. Accessed 6 August 2020.
[4] Veterinary medicinal product register of Latvia. [https://registri.pvd.gov.lv/vz]. Accessed 6 August 2020.
[5] Ministry of Health of the Republic of Latvia. 14 August 2019. "Antimicrobial resistance control and cautious use of antibiotics plan "One Health" for years 2019-2020 (Antimikrobiālās rezistences ierobežošanas un piesardzīgas antibiotiku lietošanas plāns "Viena veselība" 2019-2020)". [http://polsis.mk.gov.lv/api/file/file2108092236513336657.docx]. Accessed 6 August 2020.

1.2 ZOONOTIC 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

Latvia has a regulations and a program on zoonotic diseases. According to the Joint External Evaluation report for Latvia, conducted in May 2017, "the legal basis and programs are in place for active and passive surveillance, control and prevention of zoonotic diseases in Latvia" [1]. Procedures for the prevention and control of zoonoses are stipulated in Regulation No.298 on Procedures for Preventing and Combating Such Infectious Diseases to Which Both Animals and Humans are Susceptible (adopted 2006, last amended 2014). The regulation was issued by the Cabinet of Ministers with the Food and Veterinary Service, under the supervision of the Ministry of Agriculture, which is the institution responsible for the implementation of the procedures. The regulation clearly states that zoonoses pose a risk to human health and provides an extensive list of diseases that fall under that category [2]. The 2019 national veterinary program for the eradication, control and surveillance of a list of animal diseases and zoonoses covers the following zoonoses: African swine fever, avian influenza, classic swine fever, rabies, zoonotic salmonella (salmonella enteritidis, salmonella typhimurium), and transmissible spongiform encephalopathies [3].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 7 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.298 of 22 April 2006. "Procedures for Preventing and Combating Such Infectious Diseases to Which Both Animals and Humans are Susceptible (Kārtība, kādā veic to infekcijas slimību profilaksi un apkarošanu, ar kurām slimo gan dzīvnieki, gan cilvēki)". [https://likumi.lv/doc.php?id=133374&mode=DOC]. Accessed 7 August 2020.
[3] European Commission. 2019. "National Veterinary Programs". [https://ec.europa.eu/food/funding/animal-health/national-veterinary-programmes_en]. Accessed 7 August 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Latvia has a legislation or plans that includes measures for risk identification and reduction for zoonotic disease spillover events from animals to humans.

No publicly available evidence of such documents was found on the websites of the Ministry of Health, Center for Disease Prevention and Control (CDPC), Ministry of Agriculture, or Food and Veterinary Service (FVS) [1, 2, 3, 4]. Whilst the website of the CDPC provides an extensive list of infectious diseases, including zoonoses, it describes their pathways of transmission, but rather than stipulating national efforts to prevent spillovers, it lays out ways in which individuals can protect themselves from getting infected [5].

Regulation no.298 on Prevention and Combating of Infectious Diseases to Which Both Animals and Humans are Susceptible (adopted 2006, last amended 2014) does not explicitly identify pathways of transmission but focuses on prevention, such as frequent animal testing and vaccination [6]. Similarly, regulation No.741 (adopted 2008, last amended 2008), sets out procedures to control and prevent salmonellosis and other food-borne infectious diseases in poultry and in poultry products intended for human consumption, and the FVS offers guidelines on disposal of animal by-products not intended for human consumption, including animal carcasses, stipulate on preventive and response measures to zoonotic diseases but does not identify specific transmission pathways [7, 8].

[1] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 15 October 2020.
[2] Center for Disease Prevention and Control of Latvia. "Normative Documents". [https://www.spkc.gov.lv/lv/normativie-akti]. Accessed 15 October 2020.
[3] Ministry of Agriculture of the Republic of Latvia. "Normative Documents". [https://www.zm.gov.lv/veterinarija/statiskas-lapas/visparejie-normativie-akti?id=2407#jump]. Accessed 15 October 2020.
[4] Food and Veterinary Service of Latvia. "Veterinary and Food Supervision". [https://www.zm.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/veterinara-uzraudziba?nid=2112]. Accessed 15 October 2020.
[5] Center for Disease Prevention and Control of Latvia. "Other Infectious Diseases". [https://www.spkc.gov.lv/lv/citas-infekcijas-slimibas]. Accessed 15 October 2020.
[6] Cabinet of Ministers of the Republic of Latvia. No. 298 of 18 April 2006. "Regulation on Prevention and Combating of Infectious Diseases to Which Both Animals and Humans are Susceptible (Kārtība, kādā veic to infekcijas slimību profilaksi un apkarošanu, ar kurām slimo gan dzīvnieki, gan cilvēki)". [https://likumi.lv/ta/id/133374-kartiba-kada-veic-to-infekcijas-slimibu-profilaksi-un-apkarosanu-ar-kuram-slimo-gan-dzivnieki-gan-cilveki]. Accessed 15 October 2020.
[7] Cabinet of Ministers of the Republic of Latvia. No.741 1 January 2008. "Regulation on the Procedures to Control and Prevent Salmonellosis and Other Food-borne Infectious Diseases in Poultry and in Poultry Products Intended for Human Consuption (Noteikumi par kārtību, kādā kontrolē un apkaro salmonelozi un citas ar pārtikas produktiem pārnēsājamas infekcijas slimības mājputnu ganāmpulkos, kas paredzēti pārtikas produktu iegūšanai nelielā apjomā un tiešai piegādei galapatērētājam)". [https://likumi.lv/doc.php?id=166030]. Accessed 15 October 2020.
[8] Food and Veterinary Service of Latvia. "Disposal and use of animal by-products". [https://www.pvd.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/veterinara-uzraudziba/dzivnieku-izcelsmes-blakusproduktu-likvidesana-un-izmantosana?nid=2519]. Accessed 15 October 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

According to the Joint External Evaluation report, conducted in May 2017, Latvia has legislation that accounts for the surveillance and control of zoonotic pathogens of public health concern [1]. Regulation No.90 on Procedures for the Monitoring and Exchange of Information Regarding Such Infectious Diseases to Which Both Animals and Humans are Susceptible (adopted 2012, last amended 2012) provides guidelines for monitoring zoonoses and zoonotic pathogens, as well as such pathogens' antimicrobial resistance. The Food and Veterinary Service (FVS) and the Center for Disease Prevention and Control (CDPC) are responsible for the implementation of procedures set out by the Regulation. The Regulation addresses more than 20 zoonoses that are to be monitored, such as rabies, salmonellosis, brucellosis, campylobacteriosis, echinococcosis, listeriosis, trichinosis, and borreliosis [2]. Regulation No.298 on Procedures for Preventing and Combating

Such Infectious Diseases to Which Both Animals and Humans are Susceptible (adopted 2006, last amended 2014) provides guidelines for controlling zoonoses, listing 4 zoonoses: echinococcosis, anthrax, bovine tuberculosis and trichinosis [3]. The FVS performs the epizootological monitoring, while the CDPC performs the epidemiological monitoring of zoonoses [2, 3].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 7 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.90 of 11 February 2012. "Procedures for the Monitoring and Exchange of Information Regarding Such Infectious Diseases to Which Both Animals and Humans are Susceptible (Kārtība, kādā veic uzraudzību un informācijas apmaiņu par infekcijas slimībām, ar kurām slimo gan dzīvnieki, gan cilvēki)". [https://likumi.lv/ta/id/243913-kartiba-kada-veic-uzraudzibu-un-informacijas-apmainu-par-infekcijas-slimibam-ar-kuram-slimo-gan-dzivnieki-gan-cilveki]. Accessed 7 August 2020.
[3] Cabinet of Ministers of the Republic of Latvia. No.298 of 18 April 2006. "Procedures for Preventing and Combating Such Infectious Diseases to Which Both Animals and Humans are Susceptible (Kārtība, kādā veic to infekcijas slimību profilaksi un apkarošanu, ar kurām slimo gan dzīvnieki, gan cilvēki)". [https://likumi.lv/doc.php?id=133374&mode=DOC]. Accessed 7 August 2020.

1.2.1d

Is there a department, agency, or similar unit dedicated to zoonotic disease that functions across ministries?
Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that a platform functioning across ministries/departments/units has been developed or is under development. The websites of the Ministry of Agriculture, the Ministry of Health, the Food and Veterinary Service (FVS), the Center for Disease Prevention and Control (CDPC), the State Emergency Medical Service and the Institute for Food Safety, Animal Health and Environment contain no relevant information. [2, 3, 4, 5, 6, 7] According to the Joint External Evaluation (JEE) report for Latvia, conducted in May 2017, there is no inter-ministerial platform dedicated to zoonotic diseases. The JEE report indicates that the stakeholders in the prevention and control of zoonotic diseases are the Ministry of Agriculture, the Ministry of Health, the Food and Veterinary Service, the Center for Disease Prevention and Control, the State Emergency Medical Service, healthcare providers, and the Institute of Food Safety, Animal Health and Environment (BIOR). [1] While there is no unit specifically dedicated to zoonoses, collaboration between the CDPC, under the supervision of Ministry of Health, and the FVS, under the supervision of Ministry of Agriculture, on combating zoonoses is outlined in section 28 of the Epidemiological Safety Law (adopted 1998, last amended 2020). [8]

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 13 August 2020.
[2] Ministry of Agriculture of the Republic of Latvia. [https://www.zm.gov.lv]. Accessed 13 August 2020.
[3] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv]. Accessed 13 August 2020.
[4] Food and Veterinary Service of Latvia. [http://www.pvd.gov.lv]. Accessed 13 August 2020.
[5] Center for Disease Prevention and Control of Latvia. [https://www.spkc.gov.lv]. Accessed 13 August 2020.
[6] State Emergency Medical Service. [http://www.nmpd.gov.lv]. Accessed 13 August 2020.
[7] Institute of Food Safety, Animal Health and Environment (BIOR). [https://www.bior.lv]. Accessed 13 August 2020.
[8] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 13 August 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency. In the information brochures of the Ministry of Agriculture, livestock owners are asked to immediately alert a veterinarian, the Food and Veterinary Service (FVS), or an FVS territorial unit in the case of suspicion of an infectious disease. The brochures provide contact details (address, phone number and e-mail address) of FVS Central and Territorial Units. [1] Section 59 of the Veterinary Medicine Law (adopted 2001, last amended 2019) stipulates that animal owners have an obligation to immediately report to a veterinarian or FVS any suspicion of an infectious disease. [2] Section 2.2 of the FVS's State Plan for Monitoring Infectious Animal Diseases 2020 also includes the actions that must be taken by livestock owners in case of suspicion of disease in their animals. [3]

[1] Ministry of Agriculture of the Republic of Latvia. Informative Materials for Livestock Owners. [https://www.zm.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/lauksaimniecibas-dzivnieku-turetajiem?id=7184]. Accessed 13 August 2020.
[2] Parliament of the Republic of Latvia. 1 July 2001. "Veterinary Medicine Law (Veterinārmedicīnas likums)". [https://likumi.lv/ta/id/20436-veterinarmedicinas-likums]. Accessed 13 August 2020.
[3] Food and Veterinary Service of Latvia. 28 January 2020. "State Plan for Monitoring Infectious Animal Diseases 2020 (Dzīvnieku infekcijas slimību valsts uzraudzības 2020. gada plāns)". [https://www.pvd.gov.lv/public/ck/files/PVD/Veterinara_uzraudziba/Epidplans%202020_28_01_2020parakstits.pdf]. Accessed 13 August 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the confidentiality of information generated through surveillance activities for animals is safeguarded. The webpage containing informational materials for livestock owners on the Ministry of Agriculture's website does not show evidence of a law or guidelines safeguarding the confidentiality of information. [1] Furthermore, no evidence was found in the Veterinary Medicine Law (adopted 2001, last amended 2019) or in the State Plan for Monitoring Infectious Animal Diseases 2020. [2, 3] The Personal Data Processing Law (adopted 2018, last amended 2019), which is concerned with regulating data processing of any information relating to an identified or identifiable natural person, does not have any specific references to livestock owners' data. [4]

[1] Ministry of Agriculture of the Republic of Latvia. "Informative Materials for Livestock Owners". [https://www.zm.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/lauksaimniecibas-dzivnieku-turetajiem?id=7184]. Accessed 13 August 2020.
[2] Parliament of the Republic of Latvia. 1 July 2001. "Veterinary Medicine Law (Veterinārmedicīnas likums)". [https://likumi.lv/ta/id/20436-veterinarmedicinas-likums]. Accessed 13 August 2020.

[3] Food and Veterinary Service of Latvia. 28 January 2020. "State Plan for Monitoring Infectious Animal Diseases 2020 (Dzīvnieku infekcijas slimību valsts uzraudzības 2020. gada plāns)". [https://www.pvd.gov.lv/public/ck/files/PVD/Veterinara_uzraudziba/Epidplans%202020_28_01_2020parakstits.pdf]. Accessed 13 August 2020.
[4] Parliament of the Republic of Latvia. 5 July 2018. "Personal Data Processing Law (Fizisko personu datu apstrādes likums)". [https://likumi.lv/ta/id/300099-fizisko-personu-datu-apstrades-likum]. Accessed 13 August 2020.

1.2.2c

Does the country conduct surveillance of zoonotic disease in wildlife (e.g., wild animals, insects, other disease vectors)?
Yes = 1 , No = 0

Current Year Score: 1

Latvia conducts surveillance of zoonotic diseases in wildlife. This is confirmed by the Joint External Evaluation of IHR Core Capacities of the Republic of Latvia, conducted in May 2017, which notes, however, that zoonotic diseases surveillance in wild animals and the environment should be improved. [1] The zoonotic diseases considered significant public health concerns in Latvia are Lyme disease, salmonellosis, tick-borne encephalitis and trichinellosis. [1] Veterinary public health monitoring and control is planned, organized and coordinated by the Veterinary Surveillance Department of the Food and Veterinary Service (FVS). [2] The State Plan for Monitoring Infectious Animal Diseases 2020, issued by the FVS, under supervision of the Ministry of Agriculture, includes the surveillance of zoonotic diseases in wildlife, such as brucellosis, trichinellosis and Q fever in wild boar, reindeer, deer and elks. [3]

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 14 August 2020.
[2] Food and Veterinary Service of Latvia. "Veterinary Surveillance Department". [https://www.pvd.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/veterinara-uzraudziba?nid=2112#jump]. Accessed 14 August 2020.
[3] Food and Veterinary Service of Latvia. 28 January 2020. "State Plan for Monitoring Infectious Animal Diseases 2020 (Dzīvnieku infekcijas slimību valsts uzraudzības 2020. gada plāns)". [https://www.pvd.gov.lv/public/ck/files/PVD/Veterinara_uzraudziba/Epidplans%202020_28_01_2020parakstits.pdf]. Accessed 14 August 2020.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

Has the country submitted a report to OIE on the incidence of human cases of zoonotic disease for the last calendar year?
Yes = 1 , No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 99.28

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 1.67

2018

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of a specific mechanism for involving the private sector in controlling or responding to zoonotic diseases. The Ministry of Agriculture's webpage dedicated to the diseases affecting both humans and animals does not contain information on a mechanism for working with the private sector in controlling or responding to zoonoses. [1] There is no evidence of such a mechanism on the Ministry of Health's webpage on regulations concerning the field of public health. [2] Regulation No.298 on Procedures for Preventing and Combating Such Infectious Diseases to Which Both Animals and Humans are Susceptible (adopted 2006, last amended 2014), issued pursuant to the Veterinary Medicine Law (adopted 2001, last amended 2019), regulates the prevention and combating of zoonoses, and it does not include specific mechanisms for working with private sector, other than the requirement for private veterinarians and livestock owners to report suspected diseases to the Food and Veterinary Service, which works under the supervision of Ministry of Agriculture. [3, 4]

[1] Ministry of Agriculture of the Republic of Latvia. "Animal health and disease control. Diseases affecting both humans and animals (zoonoses)". [https://www.zm.gov.lv/veterinarija/statiskas-lapas/dzivnieku-veseliba-un-slimibu-kontrole?id=1179#jump]. Accessed 14 August 2020.
[2] Ministry of Health of the Republic of Latvia. "Regulations concerning the field of public health". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/ministru_kabineta_noteikumi/]. Accessed 14 August 2020.
[3] Cabinet of Ministers of the Republic of Latvia. No.298 of 18 April 2006. "Procedures for Preventing and Combating Such Infectious Diseases to Which Both Animals and Humans are Susceptible (Kārtība, kādā veic to infekcijas slimību profilaksi un

apkarošanu, ar kurām slimo gan dzīvnieki, gan cilvēki)". [https://likumi.lv/doc.php?id=133374&mode=DOC]. Accessed 14 August 2020.
[4] Parliament of the Republic of Latvia. 1 July 2001. "Veterinary Medicine Law (Veterinārmedicīnas likums)". [https://likumi.lv/ta/id/20436-veterinarmedicinas-likums]. Accessed 14 August 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has in place a record, updated within the past 5 years of the facilities in which especially dangerous pathogens and toxins are stored or processed. The State Civil Protection Plan (adopted 2020) includes a comprehensive list and maps of "objects of increased danger", which produce, use, manage or store dangerous substances [1]. "Objects of increased danger" are defined in accordance with Regulation No.563 on Criteria for the Specification of Objects of Increased Danger, and for the Planning and Implementation of Civil Protection and Disaster Management (adopted 2017, last amended 2017) and divided into risk groups depending on the potential scale of harm from objects they handle (groups A, B, C). Group B, for example, includes institutions where work involving biological agents of risk group 3 is performed. The plan notes that information on objects of increased danger must be identified and updated annually and reported to the State Fire and Rescue Service [2]. Objects of increased danger of state significance, as laid out in the State Civil Protection Plan, are handled only at the National Microbiology Reference Laboratory at the Riga East University Hospital and the Scientific Institute of Food Safety, Animal Health and Environment (BIOR) laboratories in four locations (all of these falling under the risk group B). The Plan does not provide any specification on the types of pathogens handled in the facilities or pathogens' location within the facilities [1]. However, according to the Joint External Evaluation, conducted in May 2017, these laboratories are also obliged to develop their own civil protection plans, which include a detailed inventory of biological agents and toxins [3]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [4]. There is no evidence in the Latvian reports of a record including the location of pathogens in the laboratories. The 2019 and 2020 reports do include information on a BSL-3 facility: the National Microbiology Reference Laboratory, within Riga East University Hospital (Latvian Center for Infectious Diseases), within which a large number of pathogens are used for research (including influenza, legionellosis, leptospirosis, listeriosis, malaria, measles and meningococcal disease), but this record includes no detailed inventories or locations [5, 6].

[1] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 2 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.563 of 22 September 2017. "Regulations Regarding Criteria for the Specification of Objects of Increased Danger, and for the Planning and Implementation of Civil Protection and Disaster Management" (Paaugstinātas bīstamības objektu apzināšanas un noteikšanas, kā arī civilās aizsardzības un katastrofas pārvaldīšanas plānošanas un īstenošanas kārtība)". [https://likumi.lv/doc.php?id=293660]. Accessed 18 August 2020.
[3] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of

Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 18 August 2020.
[4] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 18 August 2020.
[5] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 18 August 2020.
[6] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 18 August 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

Latvia does not have legislation or regulations related to biosecurity that address requirements such as physical containment, operation practices, failure reporting systems or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed.

This is confirmed by the Joint External Evaluation, conducted in May 2017 [1]. However, Latvia is beginning the process of the development and implementation of a national protocol concerning pathogen control measures, including standards for physical containment and operational handling, and containment failure reporting systems. To date, these tasks have been the responsibility of individual laboratories [1]. The Ministry of Health's webpage listing development planning documents does not provide any evidence of a national protocol being developed [2]. The 2020 work plan of the Ministry of Agriculture does not include any task concerned with the facilities in which especially dangerous pathogens and toxins are stored or processed [3]. On the Ministry of Defense's webpage dedicated to development planning documents, there is no evidence of work being conducted on developing a national protocol [4]. Whilst Latvia does not have a legislation or regulations that address specific biosecurity measures, Regulation No. 563 on Procedures for Identifying and Determining Objects of Increased Danger and for the Planning and Implementation of Civil Protection and Disaster Management (adopted 2017, last amended 2017) does include a general requirement for owners of an "object of increased danger" (including facilities storing or processing dangerous pathogens and toxins) to develop civil protection plans based on risk assessment, and to determine preventive, preparedness and response measures. No further details are provided [5].

Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [6]. However, beyond an indication that Latvia has biosecurity legislation, there is no further information in Latvia's 2019 or 2020 reports on this legislation [7, 8]. Finally, there is no evidence of any relevant regulations in the Verification Research, Training and Information Center's database of legislation related to biological weapons and materials [9].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 18 August 2020.
[2] Ministry of Health of the Republic of Latvia. "Development planning documents". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/attistibas_planosanas_dokumenti1/]. Accessed 18 August 2020.

[3] Ministry of Agriculture of the Republic of Latvia. "Yearly Work Plans". [https://www.zm.gov.lv/zemkopibas-ministrija/statiskas-lapas/darba-plans?id=1999#jump]. Accessed 18 August 2020.
[4] Ministry of Defense of the Republic of Latvia. "Development Planning Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 18 August 2020.
[5] Cabinet of Ministers of the Republic of Latvia. No.563 of 22 September 2020. "Procedures for Identifying and Determining Objects of Increased Danger, as well as for the Planning and Implementation of Civil Protection and Disaster Management (Paaugstinātas bīstamības objektu apzināšanas un noteikšanas, kā arī civilās aizsardzības un katastrofas pārvaldīšanas plānošanas un īstenošanas kārtība)". [https://likumi.lv/ta/id/293660-paaugstinatas-bistamibas-objektu-apzinasanas-un-noteiksanas-ka-ari-civilas-aizsardzibas-un-katastrofas-parvaldisanas-planosanas]. Accessed 18 August 2020.
[6] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 18 August 2020.
[7] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 18 August 2020.
[8] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 18 August 2020.
[9] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 18 August 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

Latvia has an agency responsible for biosecurity and biosafety, but there is no public evidence of biosecurity legislation. This is confirmed by the Joint External Evaluation, conducted in May 2017 [2]. The Health Inspectorate of Latvia is in charge of monitoring medical institutions with regard to regulations for biosafety and biosecurity. It operates regular checks in medical laboratories (approximately every 5-6 years). Additional checks are also carried out in medical laboratories when the Health Inspectorate receives complaints from legal persons [1, 2]. Furthermore, laboratories in which high-consequence biological agents are handled are obliged to develop their own civil protection plans and establish security units. The security of information (e.g., inventory of agents and toxins) is protected by special control measures; for example, authorized and limited access to territories, computer systems, documents and records [2]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [3]. However, there is no information in Latvia's 2019 or 2020 reports on agencies responsible for the enforcement of biosecurity legislation or regulations [4, 5]. Finally, there is no evidence of such an agency on the Verification Research, Training and Information Center's database of legislation related to biological weapons and materials [6].

[1] Cabinet of Ministers of the Republic of Latvia. No.309 of 9 July 2019. "Regulations of the Health Inspectorate (VeselÄ«bas inspekcijas nolikums)". [https://likumi.lv/ta/id/308072-veselibas-inspekcijas-nolikums]. Accessed 19 August 2020.
[2] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[3] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 19 August 2020.

[4] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 19 August 2020.
[5] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 19 August 2020.
[6] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 14 October 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 insufficient public evidence that Latvia has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. According to the Joint External Evaluation (JEE), conducted in May 2017, Latvia was in the final stages of the process of consolidating dangerous pathogens and toxins into a minimum number of facilities. Information about the inventory of dangerous agents and toxins is confidential, however, the JEE report also notes that the country has just "considered consolidating the locations for dangerous pathogens and toxins" [1]. It is unclear from the available evidence whether or not the country has taken action. No public evidence of the process of consolidation can be found on the website of the Ministry of Health, Ministry of Agriculture or Ministry of Defense [2, 3, 4]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [5]. However, there is no information in Latvia's 2019 or 2020 reports on action taken to consolidate inventories of pathogens and toxins into a minimum number of facilities [6, 7]. Finally, there is no evidence of such efforts on the Verification Research, Training and Information Center (VERTIC)'s database of legislation related to biological weapons and materials [8].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/nozare/]. Accessed 19 August 2020.
[3] Ministry of Agriculture of the Republic of Latvia. [https://www.zm.gov.lv/]. Accessed 19 August 2020.
[4] Ministry of Defense of the Republic of Latvia. [http://www.mod.gov.lv/]. Accessed 19 August 2020.
[5] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 19 August 2020.
[6] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 19 August 2020.
[7] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 19 August 2020.
[8] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 18 August 2020.

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has the capacity to conduct polymerase chain reaction (PCR)-based diagnostic testing for both Ebola and anthrax. According to the National Health Service's (NHS) catalogue of Molecular Biology Laboratory Technologies approved in Latvia, which lists over 180 pathogens tested by techniques falling under the category, anthrax (bacillus anthracis) is diagnosed using PCR-based testing. Whilst the NHS catalogue does not list Ebola as being among the pathogens tested with molecular biology technologies, the National Microbiological Reference Laboratory's website confirms that Ebola is also diagnosed using PCR-based testing [1, 2].

[1] National Health Service of Latvia. "Molecular Biological Laboratory Technologies (Molekulāri bioloģiskās laboratoriskās tehnoloģijas)". [http://www.vmnvd.gov.lv/lv/datu-bazes/rstniecb-izmantojamo-medicnisko-tehnoloiju-datu-bze/3-laboratoriskas-izmeklesanas-mediciniskie-pakalpojumi/pielikumi-izverstie-mediciniskas-tehnologijas-metodes-apraksti-un-citi-materiali/molekulari-biologiskas-laboratoriskas-tehnologijas]. Accessed 19 August 2020.
[2] National Microbiological Reference Laboratory. "Diagnostic of Ebola Virus (Ebola vīrusa diagnostika)". [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 19 August 2020.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Latvia has standardized biosecurity training for personnel in facilities housing or working with especially dangerous pathogens. According to the Joint External Evaluation, conducted in May 2017, training is conducted at the institutional level, according to laboratories' individual plans. [1] The National Reference Laboratory (NRL) regularly organizes biosafety and biosecurity training that consists of two parts: a theoretical course (lectures) and practical training exercises in laboratory rooms. [1] All personnel undergo training before they take up work in the laboratory [1]. No training plan, however, is publicly available on the webpage of the National Microbiological Reference Laboratory, which serves as the NRL for human pathogens [2]. The Institute of Food Safety, Animal Health and Environment (BIOR), which is the NRL for zoonoses, food safety and environmental threats, has not published their biosecurity training plan on its website either [3]. Furthermore, no evidence of standardized biosecurity training can be found on the websites of Ministry of Health, Ministry of Defense or Ministry of Agriculture [4, 5, 6]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [7]. Whilst Latvia's most recent reports (2019 and 2020) indicate that the National Microbiology Reference Laboratory, which is a BSL-3 facility within Riga East University Hospital, does require training, there is no explicit mention that this is standardized, nor is there evidence of standardized training elsewhere [8, 9]. Finally, there is no evidence of such training on the Verification Research, Training and Information Center's database of legislation related to biological weapons

and materials [10].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 31 August 2020.
[2] National Microbiological Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 31 August 2020.
[3] Institute of Food Safety, Animal Health and Environment (BIOR). "Training Programs". [https://www.bior.lv/lv/apmacibas]. Accessed 31 August 2020.
[4] Ministry of Health of the Republic of Latvia. "Normative Documents". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/ministru_kabineta_noteikumi/]. Accessed 31 August 2020.
[5] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 31 August 2020.
[6] Ministry of Agriculture of the Republic of Latvia. "Normative Documents". [https://www.zm.gov.lv/statiskas-lapas/normativie-akti?id=1064#jump]. Accessed 31 August 2020.
[7] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[8] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[9] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[10] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 18 August 2020.

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is no evidence that Latvia 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 Latvian National Accreditation Bureau performs laboratory accreditation and, while laboratories are required to provide a list of their workers, no information is available on whether this data is used for any checks [1]. The Institute of Food Safety, Animal Health and Environment (BIOR), which is the National Reference Laboratory (NRL) for zoonoses, food safety and environmental threats, has published its Human Resources Development Plan that includes descriptions of selection criteria and requirements for new workers, but does not mention drug testing, background checks or similar. [2]. No evidence of such checks can be found on the website of the National Microbiology Reference Laboratory, the NRL for human pathogens [3]. No evidence of such regulations can be found on the websites of the Ministry of Health, the Ministry of Defense and the Ministry of Agriculture [4, 5, 6]. No evidence of such checks can be found in the regulations of the Health Inspectorate of Latvia, which is in charge of

the monitoring medical institutions and laboratories with regard to biosafety and biosecurity [7]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [8]. However, there is no information in Latvia's 2019 or 2020 reports on specific licensing conditions, regulations or background checks for personnel dealing with such dangerous substances [9, 10]. Finally, there is no evidence of such regulations or licensing conditions in the Verification Research, Training and Information Center (VERTIC) database of legislation related to biological weapons and materials [11].

[1] Latvian National Accreditation Bureau. "Accreditation Documents for Laboratories". [https://www.latak.gov.lv/index.php?option=com_content&view=article&id=392&Itemid=335&lang=lv]. Accessed 31 August 2020.
[2] Institute of Food Safety, Animal Health and Environment (BIOR). [https://www.bior.lv/lv/par-institutu-bior/kvalitate-un-etika]. Accessed 31 August 2020.
[3] National Microbiology Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 31 August 2020.
[4] Ministry of Health of the Republic of Latvia. "Normative Documents". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/ministru_kabineta_noteikumi/]. Accessed 31 August 2020.
[5] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 31 August 2020.
[6] Ministry of Agriculture of the Republic of Latvia. "Normative Documents". [https://www.zm.gov.lv/statiskas-lapas/normativie-akti?id=1064#jump]. Accessed 31 August 2020.
[7] Health Inspectorate of Latvia. "Normative Documents". [http://www.vi.gov.lv/lv/sakums/normativie-akti/normat]. Accessed 31 August 2020.
[8] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[9] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[10] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[11] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 31 August 2020.

1.3.4 Transportation security

1.3.4a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has national regulations on the safe and secure transport of infectious substances. This is confirmed by the Joint External Evaluation, conducted in May 2017 [1]. The transportation of dangerous goods is governed by Regulation No.674 on Transporting Dangerous Goods (adopted 2005, last amended 2013). [2] This regulation does not itself mention categories A and B, but it states that it is in accordance with the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR), which mentions categories A and B [2, 3]. Every year, Latvia reports to the United Nations Office at

Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [4]. However, there is no information in Latvia's 2019 or 2020 reports on safe and secure transport of infectious substances [5, 6].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.674 of 10 September 2005. "Regulation on Transporting Dangerous Goods (Bīstamo kravu pārvadājumu noteikumi)". [https://likumi.lv/ta/id/116190-bistamo-kravu-parvadajumu-noteikumi]. Accessed 19 August 2020.
[3] The United Nations Economic Commission for Europe (UNECE). "European Agreement concerning the International Carriage of Dangerous Goods by Road". [https://www.unece.org/trans/danger/publi/adr/adr_e.html]. Accessed 19 August 2020.
[4] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 19 August 2020.
[5] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 19 August 2020.
[6] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 19 August 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

Latvia has regulations to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins, and pathogens with pandemic potential. End-user screening is mandated by the European Union's Regulation No 428/2009 Setting up a Community Regime for the Control of Exports, Transfer, Brokering and Transit of Dual-Use Items. [1] In its list of items covered by the term "dual-use", the regulation includes 91 pathogens and toxins: 32 human viruses, 17 animal viruses, 4 rickettsiae, 15 bacteria, 19 toxins, 2 fungi and 2 mycoplasmas [1]. Among others, this includes the pathogens and toxins associated with plague, cholera, encephalitis, Ebola, dengue fever, anthrax, salmonellosis, brucellosis, shigellosis, yellow fever and botulism. However, the list omits pathogens and toxins associated with some major infectious diseases, such as influenza and tuberculosis. The regulation states that export authorization is subject to identification of the end-user and intended use [1]. It further states that dual-use items may not be exported when the exporter is informed by member state authorities that they are intended for the production of weapons of mass destruction, or for military use more broadly where the destination country is subject to an arms embargo imposed by the Organization for Security and Co-operation in Europe (OSCE) or the United Nations Security Council [1]. Regulations issued by the European Council are legally binding legislative acts in all European Union member states [2].

[1] European Council. No.428/2009 of 5 May 2009. "Council Regulation (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items". [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:32009R0428]. Accessed 19 August 2020.

[2] European Union. "Regulations, Directives and other acts". [https://europa.eu/european-union/eu-law/legal-acts_en]. Accessed 19 August 2020.

1.4 BIOSAFETY

1.4.1 Whole-of-government biosafety systems

1.4.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has biosafety legislation and regulations in place to protect people who work with harmful biological substances. This is confirmed by the Joint External Evaluation, conducted in May 2017 [1]. The primary legislation is Regulation No.189 on Labor Protection Requirements When Coming into Contact with Biological Substances (adopted 2003, last amended 2012), which prescribes requirements for the protection of employees from risks to their safety and health caused by contact with biological substances in the workplace. [2] This regulation stipulates that employers shall conduct a risk assessment, within the scope of their internal supervision of the working environment, not less than once a year [2]. If during risk assessment it is determined that there is a risk to the safety and health of employees, the employer shall reduce the risk to a minimum, taking measures such as: organizing working procedures and control so as to prevent or reduce to a minimum the release of biological agents into the work environment [2]. The regulation further obliges employers to ensure that workplaces comply with a sanitary-epidemiological safety regime, in order to prevent or reduce the possibility of accidental transmission or release of biological agents [2]. Employers are further required to ensure the safe storage, transport and reloading of biological agents at the workplace [2]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [3]. However, beyond an indication that Latvia has biosafety legislation, there is no further information in Latvia's 2019 or 2020 reports on this legislation [4, 5].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 31 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.189 of 1 January 2003. "Labor Protection Requirements when coming into Contact with Biological Substances (Darba aizsardzības prasības, saskaroties ar bioloģiskajām vielām)". [https://likumi.lv/ta/id/62417-darba-aizsardzibas-prasibas-saskaroties-ar-biologiskajam-vielam]. Accessed 31 August 2020
[3] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[4] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[5] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.

1.4.1b

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

Yes = 1 , No = 0

Current Year Score: 1

There is an established agency responsible for the enforcement of biosafety legislation and regulations in Latvia. This is confirmed by the Joint External Evaluation, conducted in May 2017 [1]. Regulation No.189 on Labor Protection Requirements When Coming into Contact with Biological Substances (adopted 2003, last amended 2012), designed to protect the people who work with harmful biological substances, stipulates that compliance is to be controlled by the State Labor Inspectorate, while specific control functions are to be performed by the State Environment Inspectorate and the State Health Inspectorate. The inspection of veterinary institutions and laboratories is conducted by the State Environment Inspectorate, whilst inspection of biosafety compliance in medical institutions and medical laboratories is the responsibility of the State Health Inspectorate of Latvia. The Health Inspectorate regularly verifies laboratories' compliance with the rules set out in the legislation related to hygiene, safe working environments and medicine transport [1, 2]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [3]. However, there is no information in Latvia's 2019 or 2020 reports on agencies responsible for the enforcement of biosafety legislation and regulations [4, 5].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 31 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.189 of 1 January 2003. "Labor Protection Requirements when coming into Contact with Biological Substances (Darba aizsardzības prasības, saskaroties ar bioloģiskajām vielām)". [https://likumi.lv/ta/id/62417-darba-aizsardzibas-prasibas-saskaroties-ar-biologiskajam-vielam]. Accessed 31 August 2020
[3] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[4] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[5] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 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 trainthe-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Latvia requires biosafety training, using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. This Joint External Evaluation, conducted in May 2017, reports that there is no common curriculum for biosafety and biosecurity training across all facilities housing or working with dangerous pathogens, and that such training is only organized at the institution level [1]. No standardized training plan is laid out in Regulation No.189 on Labor Protection Requirements When Coming into Contact with Biological Substances (adopted 2003, last amended 2012), which lays out measures and requirements to protect people who work with harmful biological substances. [2] The Regulation stipulates that training is conducted at the institutional level, and that it is

the employer's responsibility to ensure the safety of employees by complying with the regulation. [2] The enforcement of biosafety regulations in medical institutions and medical laboratories working with biological substances is the responsibility of the Health Inspectorate of Latvia [1, 2]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [3]. Latvia's most recent reports (2019 and 2020) indicate that the key personnel of the National Microbiology Reference Laboratory, which is a BSL-3 facility within Riga East University Hospital, has been trained in the UK's Health Protection Agency's Center for Emergency Preparedness and Response BSL-3/4 laboratory, undertaking the Principles and practices of working at ACDP Containment level 3 course. However, there is no further evidence of standardized training elsewhere [4, 5]. Finally, there is no evidence that Latvia requires standardized biosafety training on the Verification Research, Training and Information Center's database of legislation related to biological weapons and materials [6].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 31 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.189 of 1 January 2003. "Labor Protection Requirements when coming into Contact with Biological Substances (Darba aizsardzības prasības, saskaroties ar bioloģiskajām vielām)". [https://likumi.lv/ta/id/62417-darba-aizsardzibas-prasibas-saskaroties-ar-biologiskajam-vielam]. Accessed 31 August 2020
[3] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[4] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[5] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[6] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 14 October 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

Is there publicly available evidence that the country has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential and/or other dual-use research?
Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Latvia has conducted an assessment to determine whether there is ongoing dual-use research with especially dangerous pathogens, toxins, pathogens with pandemic potential. According to the Joint External Evaluation, conducted in May 2017, work with group 3 biological agents is allowed only within the National Microbiology Reference Laboratory in Biosafety Level 3 facilities [1]. However, there is no information regarding assessments of ongoing research with especially dangerous pathogens, toxins, pathogens with pandemic potential on the laboratory's website [2]. The Institute of Food Safety, Animal Health and Environment (BIOR), which is the national reference laboratory for zoonoses, food safety and environmental threats, publishes their scientific research projects on their website, but those

do not include research with especially dangerous pathogens, toxins, pathogens with pandemic potential [3]. Furthermore, there is no evidence of an assessment of ongoing research on the Ministry of Agriculture, the Ministry of Health, and the Ministry of defense websites [4, 5, 6]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [7]. However, there is no information in Latvia's 2019 or 2020 reports on assessments to determine whether there is ongoing dual-use research with especially dangerous pathogens, toxins or pathogens with pandemic potential [8, 9]. Finally, there is no evidence that such assessment has been conducted in the Verification, Research, Training and Information Center (VERTIC) database of legislation related to biological weapons and materials [10].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 31 August 2020.
[2] National Microbiology Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 31 August 2020.
[3] Institute of Food Safety, Animal Health and Environment (BIOR). Scientific Research Projects. [https://www.bior.lv/lv/zinatniska-darbiba/aktualie-petijumi]. Accessed 31 August 2020.
[4] Ministry of Agriculture of the Republic of Latvia. [https://www.zm.gov.lv/]. Accessed 31 August 2020.
[5] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/nozare/]. Accessed 31 August 2020.
[6] Ministry of Defense of the Republic of Latvia. "Scientific research activity". [https://www.mod.gov.lv/lv/nozares-politika/zinatniski-petnieciska-darbiba]. Accessed 31 August 2020.
[7] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[8] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[9] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[10] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 31 August 2020.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence of legislation requiring oversight of dual-use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. The Committee for Control of Goods of Strategic Significance is a collegial control institution subordinate to the minister of foreign affairs and including representatives from the Ministry of Health and the Ministry of Defense. The Committee prepares proposals in relation to draft laws and regulations regarding the manufacture, storage, sale, use, technical maintenance, export, import, transfer, and transit control of goods of strategic significance, including dual-use items. Whilst the Law On the Circulation of Goods of Strategic Significance (adopted 2007, last amended 2020) regulates the circulation of dual-use items, there is no direct reference to research activities [1, 2]. Furthermore, no information on dual-use research regulations can be found on the websites of Ministry of Health, Ministry of defense, or Ministry of Agriculture [3, 4, 5]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for

the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [6]. However, there is no information in Latvia's 2019 or 2020 reports on legislation requiring oversight of dual-use research, such as that with especially dangerous pathogens, toxins or pathogens with pandemic potential [7, 8]. Finally, there is no evidence of such legislation in the Verification, Research, Training and Information Center (VERTIC) database of legislation related to biological weapons and materials [9].

[1] Cabinet of Ministers of the Republic of Latvia. No.866 of 12 August 2009. ''By-laws of the Committee for Control of Goods of Strategic Significance (Stratēģiskas nozīmes preču kontroles komitejas nolikums)". [https://likumi.lv/doc.php?id=195928]. Accessed 31 August 2020.
[2] Parliament of the Republic of Latvia. 19 July 2007. "Law On the Circulation of Goods of Strategic Significance (Stratēģiskas nozīmes preču aprites likums)". [https://likumi.lv/doc.php?id=163892]. Accessed 31 August 2020.
[3] Ministry of Health of the Republic of Latvia. "Regulations". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 31 August 2020.
[4] Ministry of Defense of the Republic of Latvia. "Regulations". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 31 August 2020.
[5] Ministry of Agriculture of the Republic of Latvia. "Regulations". [https://www.zm.gov.lv/statiskas-lapas/normativie-akti?id=1064#jump]. Accessed 31 August 2020.
[6] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[7] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[8] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[9] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 31 August 2020.

1.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no clear evidence of an agency responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, or other dual-use research. The Committee for Control of Goods of Strategic Significance, a collegial control institution subordinate to the minister of foreign affairs and including representatives from the Ministry of Health and the Ministry of Defense, is concerned with manufacture, storage, sale, use, technical maintenance, export, import, transfer, and transit control of goods of strategic significance, including dual-use items. However, By-Law No. 866 of the Committee for Control of Goods of Strategic Significance, which regulates the Committee's work, does not include any reference to research with dual-use items [1,2]. According to the Joint External Evaluation, conducted in May 2017, work with group 3 biological agents is allowed only within the National Microbiology Reference Laboratory in Biosafety Level 3 facilities [3]. However, on the laboratory's website there is no information on ongoing research with especially dangerous pathogens [4]. No evidence of an agency supervising such research can be found on the websites of the Institute of Food Safety, Animal Health and Environment (BIOR), Ministry of Health, Ministry of Agriculture, or Ministry of Defense [5, 6, 7, 8]. Every year, Latvia reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return",

which is a reporting mechanism set by the Biological Weapons Convention (BWC), and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [9]. However, there is no information in Latvia's 2019 or 2020 reports on an agency responsible for oversight of research with especially dangerous pathogens [10, 11]. Finally, there is no evidence of such agency in the Verification, Research, Training and Information Center (VERTIC) database of legislation related to biological weapons and materials [12].

[1] Cabinet of Ministers of the Republic of Latvia. No.866 of 12 August 2009. ''By-laws of the Committee for Control of Goods of Strategic Significance (Stratēģiskas nozīmes preču kontroles komitejas nolikums)". [https://likumi.lv/doc.php?id=195928]. Accessed 31 August 2020.
[2] Parliament of the Republic of Latvia. 19 July 2007. "Law On the Circulation of Goods of Strategic Significance (Stratēģiskas nozīmes preču aprites likums)". [https://likumi.lv/doc.php?id=163892]. Accessed 31 August 2020.
[3] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 31 August 2020.
[4] National Microbiology Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 31 August 2020.
[5] Institute of Food Safety, Animal Health and Environment (BIOR). "Scientific Research Projects". [https://www.bior.lv/lv/zinatniska-darbiba/aktualie-petijumi]. Accessed 31 August 2020.
[6] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/nozare/]. Accessed 31 August 2020.
[7] Ministry of Agriculture of the Republic of Latvia. [https://www.zm.gov.lv/]. Accessed 31 August 2020.
[8] Ministry of Defense of the Republic of Latvia. "Scientific research activity". [https://www.mod.gov.lv/lv/nozares-politika/zinatniski-petnieciska-darbiba]. Accessed 31 August 2020.
[9] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[10] United Nations Office at Geneva. "Confidence Building Measures. Latvia." CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[11] United Nations Office at Geneva. "Confidence Building Measures. Latvia." CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[12] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 31 August 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 publicly available evidence that Latvia has legislation and/or regulation requiring the screening of synthesized DNA against lists of known pathogens and toxins before it is sold. However, this is legislation requiring the screening of synthesized DNA. The Law on the Circulation of Genetically Modified Organisms (adopted 2007, last amended 2019) refers to any organism, with the exception of human beings, in which the genetic material has been altered through the use of the methods of genetic modification, including recombinant nucleic acid techniques applied on viral and bacterial plasmid (microorganisms: virus and viroids). The law sets out the competences of state authorities, the rights and obligations of

natural and legal persons, and the principles for the supervision and control of the circulation of genetically modified organisms [1]. Additionally, Regulation No.784 on Procedures for the Contained Use of Genetically Modified Microorganisms, Issuance of a Permit and Cancelling Thereof (adopted 2008, last amended), which regulates the contained use of genetically modified microorganisms, defined them as any microbiological entity, cellular or non-cellular, capable of replication or of transferring genetic material, including viruses, viroids, and animal and plant cells in culture [2]. In order to place genetically modified organisms on the market it is necessary to receive one of the following permits: 1) a permit in accordance with the laws and regulations regarding the deliberate release of genetically modified organisms, the procedures for monitoring and the issuance of permits, as well as the procedures for the provision of information regarding the circulation of genetically modified organisms and the public involvement in the decision-making process; 2) a relevant permit from the competent authority of another European Union member state; 3) a permit specified in Regulation No 1829/2003 of the European Parliament and of the Council on genetically modified food and feed [1]. However, there is no indication in any of these sources of requiring screening against lists of known pathogens and toxins, nor could such evidence be found on the websites of the Ministry of Agriculture, Ministry of Health, Ministry of Defense or Ministry of Transport [3, 4, 5, 6]. There is no relevant information in Latvia's 2019 or 2020 Confidence Building Measures reports on synthesized DNA being screened for sequences related to dangerous agents [7, 8, 9]. Finally, there is no evidence of such legislation or regulation in the Verification, Research, Training and Information Center (VERTIC) database of legislation related to biological weapons and materials [10].

[1] Parliament of the Republic of Latvia. 19 December 2007. "Law on the Circulation of Genetically Modified Organisms (Ģenētiski modificēto organismu aprites likums)". [https://likumi.lv/ta/id/167400-genetiski-modificeto-organismu-aprites-likums]. Accessed 31 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.784 of 1 December 2008. "Procedures for the Contained Use of Genetically Modified Micro-organisms, Issuance of a Permit and Cancelling Thereof (Ģenētiski modificēto mikroorganismu ierobežotas izmantošanas, kā arī atļaujas izsniegšanas un anulēšanas kārtība)". [https://likumi.lv/ta/id/181629-genetiski-modificeto-mikroorganismu-ierobezotas-izmantosanas-ka-ari-atlaujas-izsniegsanas-un-anulesanas-kartiba]. Accessed 31 August 2020.
[3] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/nozare/]. Accessed 31 August 2020.
[4] Ministry of Defense of the Republic of Latvia. [http://www.mod.gov.lv/]. Accessed 31 August 2020.
[5] Ministry of Agriculture of the Republic of Latvia. [https://www.zm.gov.lv]. Accessed 31 August 2020.
[6] Ministry of Transport of the Republic of Latvia. [http://www.sam.gov.lv]. Accessed 31 August 2020.
[7] United Nations Office at Geneva. "Confidence Building Measures. Latvia". [https://bwc-ecbm.unog.ch/state/latvia]. Accessed 31 August 2020.
[8] United Nations Office at Geneva. 2019. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_latvia.pdf]. Accessed 31 August 2020.
[9] United Nations Office at Geneva. 2020. "Confidence Building Measures. Latvia. CBM Report". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_latvia.pdf]. Accessed 31 August 2020.
[10] Verification Research, Training and Information Center. "BWC Legislation Database". [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/l/]. Accessed 31 August 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: 2

2019

World Health Organization

1.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 2

Latvian laboratories are able to conduct all 10 World Health Organization (WHO)-defined core tests. According to the Joint External Evaluation (JEE) report for Latvia, conducted in May 2017, the country can conduct all six common tests: polymerase chain reaction (PCR) testing for Influenza virus (flu); virus culture for poliovirus (polio); serology for HIV; microscopy for mycobacterium tuberculosis; rapid diagnostic testing for plasmodium spp. (malaria); and bacterial culture for Salmonella enteritidis serotype Typhi (typhoid). At the time of the JEE report, the country could also test for the four country-specific tests, which were: enzyme-linked immunosorbent assay (ELISA) for viral gastroenteritis; Nucleic Acid Amplification (NAAT)test for chlamydia trachomatis; ELISA for tick-borne encephalitis antibody / borrelia antibody (Lyme disease) ; ELISA for hepatitis C antibody/antigen and PCR for hepatitis C (one or two step Reverse Transcriptase-PCR) [1]. The Molecular Biological Laboratory Technologies' list of pathogens and methods of testing confirms that information [2].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] National Health Service of Latvia. "Molecular Biological Laboratory Technologies (Molekulāri bioloģiskās laboratoriskās tehnoloģijas)". [http://www.vmnvd.gov.lv/lv/datu-bazes/rstniecb-izmantojamo-medicnisko-tehnoloiju-datu-bze/3-laboratoriskas-izmeklesanas-mediciniskie-pakalpojumi/pielikumi-izverstie-mediciniskas-tehnologijas-metodes-apraksti-un-citi-materiali/molekulari-biologiskas-laboratoriskas-tehnologijas]. Accessed 19 August 2020.

2.1.1b

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

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

Current Year Score: 1

Latvia has a national plan for conducting testing during a public health emergency, but it does not include considerations for testing for novel pathogens or scaling capacity. The State Disaster Medicine Plan (last amended 2020) is an all-hazard plan covering public health emergencies, which describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. [1] According to this plan, the responsible institution for testing during a public health emergency is the National Microbiological Reference Laboratory (Riga East University Hospital), which serves as the national reference laboratory (NRL) for human pathogens“ as laid out in the plan's attachment no.2 dedicated to dangerous and other infectious diseases and attachment no.6 on responding to an emergency caused by a disease of unknown origin. In both attachments, it is stipulated that the NRL performs large scale primary and confirmatory sample testing in order to ensure epidemiological surveillance of communicable diseases. However, the plan does not mention testing for novel pathogens or lay out a specific mechanism for scaling testing capacity, besides stipulating that the State Emergency Medical Service is responsible for acquiring additional resources from the stocked medicines and medical equipment as needed [1]. There is no evidence of testing for novel pathogens or scaling testing capacity in the Epidemiological Safety Law (adopted 1998, last amended 2020), on the websites of the NRL, the Ministry of Health, the Center for Disease Prevention and Control, or the Ministry of Agriculture [2, 3, 4, 5, 6].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 22 September 2020.
[2] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 22 September 2020.
[3] The National Microbiological Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 22 September 2020.
[4] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 22 September 2020.
[5] Center for Disease Prevention and Control of Latvia. "About the Center/Normative Documents". [https://www.spkc.gov.lv/lv/normativie-akti]. Accessed 22 September 2020.
[6] Ministry of Agriculture of the Republic of Latvia. "Normative Documents". [https://www.zm.gov.lv/veterinarija/statiskas-lapas/nozari-regulejosa-likumdosana?nid=938#jump]. Accessed 14 October 2020.

2.1.2 Laboratory quality systems

2.1.2a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has accredited national reference laboratories (NRLs). This is confirmed by the Joint External Evaluation, conducted in May 2017 [1]. The National Microbiological Reference Laboratory (Riga East University Hospital), which serves as the NRL for all human pathogens, is accredited with LVS EN ISO 15189:2013 and LVS EN ISO/IEC 17025:2005 standards [2, 3]. Standard LVS EN ISO 15189:2013 "Medical laboratories. Requirements for quality and competence" certifies that the laboratory has quality control procedures for monitoring the validity of tests and calibrations undertaken [4]. Standard LVS EN ISO/IEC 17025:2005 "General Requirements for the Competence of Testing and Calibration Laboratories" specifies the general requirements for the competence to carry out tests and/or calibrations, including sampling [4]. According to the Latvian National Accreditation System, to obtain the status of a National Reference Laboratory, the laboratory must be accredited with ISO and IEC standards, alongside other requirements [5].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] The National Microbiological Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 19 August 2020.
[3] International Organization for Standardization. "ISO 15189:2012 Medical laboratories - Requirements for quality and competence". [https://www.iso.org/standard/56115.html]. Accessed 19 August 2020.
[4] International Organization for Standardization. "ISO/IEC 17025:2005 General requirements for the competence of testing and calibration laboratories". [https://www.iso.org/standard/39883.html]. Accessed 19 August 2020.
[5] Latvian National Accreditation Bureau. 2017. "Proficiency testing in Latvian National accreditation system (Prasmes pārbaudes Latvijas Nacionālajā akreditācijas sistēmā)". [https://www.latak.gov.lv/attachments/article/392/D007-09-09-2017.pdf]. Accessed 19 August 2020.

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The national reference laboratory (NRL) is subject to external quality assurance (EQA) reviews. The NRL for human pathogens is the National Microbiological Reference Laboratory (Riga East University Hospital). According to the Joint External Evaluation, conducted in May 2017, the NRL is a member of several European Union and international laboratory networks such as the European Center for Disease Prevention and Control (ECDC) and the World Health Organization (WHO), and regularly participates in international external quality assessment schemes [1]. Additionally, the Latvian Center for Disease Prevention and Control on behalf of the Ministry of Health requested an EQA from the ECDC for the entire national reference laboratory system, which was conducted in March 2014 [2].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1].

Accessed 19 August 2020.
[2] European Center for Disease Prevention and Control (ECDC). 23 February 2015. "Assessment of Latvia's reference microbiology laboratory system. March 2014".
[https://ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/laboratory-system-assessment-mission-report-latvia-2014.pdf]. Accessed 19 August 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 1

There is a nationwide specimen transport system in place in Latvia. According to the Joint External Evaluation (JEE) of IHR Core Capacities of the Republic of Latvia, conducted in May 2017, the transportation of laboratory samples at the national level is provided by individual institutions that send samples to the national reference laboratory (NRL) [1]. The institution sending the specimens must follow the NRL's instructions set out for different pathogens, which can be found in a document titled "Information for customers: measurable indicators, material to be investigated, storage and transportation, planned execution schedule" [2]. According to the JEE, Latvia has the ability to transport specimens safely and quickly from 80% or more of intermediate levels/districts to national laboratory facilities for advanced diagnostics. Transportation from some regions is currently only organized once or twice a week. No private couriers are contracted by the Ministry of Health (MoH) to cover the lack of transportation from some regions to the NRL [1]. No evidence of private courier contracting can be found in the MoH website [3].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] National Microbiological Reference Laboratory. "Information for customers: measurable indicators, material to be investigated, storage and transportation, planned execution schedule (Informācija pasūtītājiem: nosakāmie rādītāji, izmeklējamais materiāls, tā uzglabāšana un transportēšana, plānotais izpildes grafiks)".
[https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 19 August 2020.
[3] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/nozare/]. Accessed 19 August 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 publicly available evidence that Latvia has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. The State Disaster Medicine Plan (last amended 2020) is an all-hazard plan covering public health emergencies, which describes the

objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. According to this plan, the institution responsible for testing during a public health emergency is the National Microbiological Reference Laboratory (Riga East University Hospital), which serves as the national reference laboratory (NRL) for human pathogens, as laid out in the plan's attachment no.2 on dangerous and other infectious diseases and attachment no.6 on responding to an emergency caused by a disease of unknown origin. In both attachments, it is stipulated that the NRL performs large-scale primary and confirmatory sample testing in order to ensure epidemiological surveillance of communicable diseases. However, the plan does not stipulate a specific mechanism to rapidly authorize or license the NRL or any other laboratory to scale-up testing [1]. There is no evidence of a plan concerning scaling-up the testing capacity of laboratories in the Epidemiological Safety Law (adopted 1998, last amended 2020) [2], on the websites of the NRL, the Ministry of Health, the Center for Disease Prevention and Control, or the Ministry of Agriculture [3, 4, 5, 6].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 22 September 2020.
[2] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 22 September 2020.
[3] The National Microbiological Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 22 September 2020.
[4] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 22 September 2020.
[5] Center for Disease Prevention and Control of Latvia. "About the Center/Normative Documents". [https://www.spkc.gov.lv/lv/normativie-akti]. Accessed 22 September 2020.
[6] Ministry of Agriculture of the Republic of Latvia. "Normative Documents". [https://www.zm.gov.lv/veterinarija/statiskas-lapas/nozari-regulejosa-likumdosana?nid=938#jump]. Accessed 14 October 2020.

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

Is there evidence that the country is conducting ongoing event-based surveillance and analysis for infectious disease?
Yes, there is evidence of ongoing event-based surveillance and evidence that the data is being analyzed on a daily basis = 2, Yes, there is evidence of ongoing event-based surveillance, but no evidence that the data are being analyzed on a daily basis = 1, No = 0

Current Year Score: 2

There is evidence that Latvia conducts ongoing event-based surveillance (EBS) and analysis for infectious diseases on a daily basis. According to the State Civil Protection Plan (adopted 2020), which details the Civil Protection and Disaster Management System for a wide range of threats, Latvia performs EBS. [1] The plan states that EBS is performed by the Center for Disease Prevention and Control (CDPC), under the supervision of the Ministry of Health. In the plan's attachment no.25, task No.1 stipulates that the CDPC is responsible for collecting, updating, compiling and analyzing information on possible risks of infectious diseases within the framework of epidemiological surveillance and intelligence [1]. According to the Joint External Evaluation of Latvia, conducted in May 2017, "event-based surveillance of national newspapers and webpages, media are automatically scanned for a list of specified keywords using tailored web-crawlers who collect the

relevant text sections on a daily basis" [2].

[1] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 22 September 2020. Accessed 1 September 2020.
[2] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 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 public evidence that Latvia has reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. No such evidence can be located on the WHO webpage dedicated to Disease Outbreak News or the WHO country page for Latvia [1, 2]. Such evidence is also absent from the websites of the Center for Disease Prevention and Control and the Ministry of Health. [3, 4] Since 30 January 2020, when the WHO officially declared Covid-19 a PHEIC, Latvia has been providing data on the daily count of new confirmed cases and deaths, with the first case of the virus in Latvia being reported on March 2020. [5] The WHO Covid-19 Health System Response Monitor contains timeline and the latest information on Latvia's Covid-19 policy responses [6]. The WHO country page, news webpage, also reflects on Latvia's response to the Covid-19 pandemic [7].

[1] World Health Organization (WHO). "Disease Outbreak News (DONs)". [https://www.who.int/csr/don/en/]. Accessed 5 April 2021.
[2] World Health Organization (WHO). 2021. "Country page - Latvia. News". [https://www.euro.who.int/en/countries/latvia/news/news/news?root_node_selection=74155]. Accessed 5 April 2021.
[3] Center for Disease Prevention and Control of Latvia. "News". [https://www.spkc.gov.lv/lv/jaunumi]. Accessed 5 April 2021.
[4] Ministry of Health of the Republic of Latvia. "News". [https://www.vm.gov.lv/lv/aktualitates]. Accessed 5 April 2021.
[5] World Health Organization (WHO). 2020. "WHO Coronavirus Disease (Covid-19) Dashboard. Latvia". [https://covid19.who.int/region/euro/country/lv]. Accessed 14 October 2020.
[6] World Health Organization (WHO). 2020. "Covid-19 Health System Response Monitor. Latvia". [https://www.covid19healthsystem.org/countries/latvia/countrypage.aspx]. Accessed 14 October 2020.
[7] World Health Organization (WHO). 2020. "Country page - Latvia. News". [https://www.euro.who.int/en/countries/latvia/news/news/news?root_node_selection=74155]. Accessed 14 October 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

The government operates an electronic surveillance system at both the national and the sub-national level. The electronic reporting system is the State Infectious Diseases Supervision and Monitoring System "VISUMS", a module integrated into the State Information System "VIS", which is also where electronic patient data is held. Not only health practitioners, but also managers of educational institutions and social care institutions, who detect a cluster of suspected cases can report this to their regional Center for Disease Prevention and Control (CDPC) office by telephone (staffed 24/7 to handle urgent incoming case reports). Regional CDPC offices enter reported cases into the "VISUMS" system so that it is available nationally in real time [1, 2].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] State's information system register. "State Infectious Diseases Supervision and Monitoring System (Valsts infekcijas slimibu uzraudzibas un monitoringa sistema (VISUMS))". [https://data.gov.lv/dati/lv/dataset/visr/resource/d34451d4-3a5a-41b0-9bb7-403201237e69]. Accessed 19 August 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The electronic reporting surveillance system collects ongoing real-time laboratory data. According to the Joint External Evaluation (JEE), conducted in May 2017, the surveillance system collects real-time data as reported by laboratories [1]. The regulation on "Procedures for Registration of Infectious Diseases" (adopted 1999, last amended 2020) specifies how quickly cases must be reported, depending on the severity of disease. Diseases classified as dangerous infectious diseases are to be immediately reported by telephone to the Center for Disease Prevention and Control who then enter it in the electronic reporting system "VISUMS" (e.g., anthrax, poliomyelitis, avian influenza, rabies, smallpox, yellow fever etc.). Less severe diseases must be reported within 72 hours by sending a completed form of urgent notification by fax, post, courier or electronically [2].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.7 of 9 January 1999. "Procedures for Registration of Infectious Diseases (Infekcijas slimību reģistrācijas kārtība)". [https://likumi.lv/ta/id/20667-infekcijas-slimibu-registracijas-kartiba]. Accessed 19 August 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 2

Electronic health records are commonly in use. The system "E-Veseliba" is used by medical institutions, patients and pharmacies. The system provides access to current and historical medical data of the patients (documents issued by hospitals, diagnoses, allergies, regular medicines, and more), prescriptions, and sick-leave certificates. Since 1 January 2018, the use of "E-Veseliba" system has been mandatory for all medical institutions and pharmacies and services such as registering sick-leave or obtaining prescription for state-funded medicines are available only electronically [1]. According to E-Veseliba's statistical data, in 2019 there have been 2.1 million sick-leave e-certificates, 25.7 million e-prescriptions, and 1.3 million referrals to medical imaging examination (such as x-ray radiography and medical ultrasonography) [2]. In relation to the population of Latvia, these figures suggest that electronic health records are commonly used.

[1] E-Health System of the Republic of Latvia. About E-Veseliba. [https://www.eveseliba.gov.lv/sakums/about-portal]. Accessed 19 August 2020.
[2] E-Health System of the Republic of Latvia. 2019. Statistical data of the use of E-Veseliba system. [https://www.eveseliba.gov.lv/docs/default-source/default-document-library/2019-gadu.pdf?sfvrsn=0]. Accessed 19 August 2020.

2.4.1b

Does the national public health system have access to electronic health records of individuals in their country?
Yes = 1 , No = 0

Current Year Score: 1

Latvia's national public health system has access to electronic health records of individuals in the country. The Latvian healthcare system is characterized by tax-financed statutory healthcare provision, a purchaser-provider split and a mix of public and private providers. [1] The system provides coverage of the entire population and pays for a publicly funded benefits package [1]. The electronic health records of individuals are stored in the state's electronic health information system "E-Veseliba". The system is managed by the National Health Service (NHS), an administrative institution subordinate to Ministry of Health. The NHS plans and implements state policy for availability of health care services; administers budgetary funds earmarked for health care; ensures the rational and effective use of the budget, and implements the e-Health program [2]. According to the Law on the Rights of Patients (adopted 2010, last amended 2018), the Health Inspectorate is granted access to "to ensure the performance of health surveillance functions," as are medical practitioners and persons supporting medical treatment [3].

[1] European Commission. "State of Health in the EU. Latvia: Country Health Profile 2017". [http://www.euro.who.int/__data/assets/pdf_file/0009/355986/Health-Profile-Latvia-Eng.pdf?ua=1]. Accessed 19 August 2020.
[2] National Health Service of Latvia. "About the National Health Service". [http://www.vmnvd.gov.lv/lv/par-nvd/77-par-nvd]. Accessed 19 August 2020.
[3] Parliament of the Republic of Latvia. 1 March 2010. "Law On the Rights of Patients (Pacientu tiesibu likums)". [https://likumi.lv/ta/id/203008-pacientu-tiesibu-likums]. Accessed 19 August 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 are standards to ensure data is comparable. Patient data is stored on the health information system "E-Veseliba", which follows several internationally-accepted data standards such as: current International Statistical Classification of Diseases and Related Health Problems, 10th revision (the ICD-10); surgical interventions, in accordance with the current version of the Classification of Surgical Procedures with the supplement (NCSP+) of the Nordic Medico-Statistical Committee (NOMESCO). Further instructions of data input requirements are provided by Regulation No.134 on the Unified Electronic Information System of the Health Sector (adopted 2014, last amended 2019) [1].

[1] Cabinet of Ministers of the Republic of Latvia. No.134 of 1 April 2014. "Regulations Regarding Unified Electronic Information System of the Health Sector" (Noteikumi par vienotās veselības nozares elektroniskās informācijas sistēmu)". [https://likumi.lv/ta/id/264943-noteikumi-par-vienoto-veselibas-nozares-elektronisko-informacijas-sistemu]. Accessed 19 August 2020.

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is a mechanism in place for sharing animal, human and wildlife surveillance data between institutions. According to the Joint External Evaluation, conducted in May 2017, there are agreements between the Center for Disease Prevention and Control (CDPC), the Food and Veterinary Service (FVS), the national reference laboratories (NRLs) and the Health Inspectorate, ensuring the swift exchange of data [1]. However, the agreements on sharing surveillance data are not publicly available on the websites of CDCP, FVS, NRLs or the Health Inspectorate [2, 3, 4, 5, 6]. Regulations regarding the exchange are set forth by Regulation No.90 on Procedures for the Supervision and Exchange of Information on Infectious Diseases that Affect Both Animals and People (adopted 2012, last amended 2012) and Regulation No.7 on Procedures for Registration of Infectious Diseases (adopted 1999, last amended 2020) [7, 8]. The latter specifies that the NRL shall notify the CDPC or FVS, depending on the level of danger posed by the disease, either without delay by telephone, or within 72 hours by sending a completed form of urgent notification by fax, by post, by courier or electronically. The CDPC and the FVS are required to exchange information within no more than two days on cases where infectious diseases, referred to in Annex 1 of the regulation, have been detected in humans or animals, as well as regarding cases where the pathogens have been detected in food products or in the proximity of food-producing activities. Annex 1 lists 23 diseases, including Brucellosis, E.coli O157:H7 infection, Anthrax, Salmonellosis, Rabies, Tick-borne viral encephalitis, Trichinellosis, Echinococcosis, Toxoplasmosis. The Health Inspectorate is responsible for enforcing compliance with the regulation [8].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 19 August 2020.
[2] Center for Disease Prevention and Control of Latvia. "Legislation regulating the operation of the Center for Disease Prevention and Control (Normatīvie akti, kas regulē Slimību profilakses un kontroles centra darbību)". [https://www.spkc.gov.lv/lv/par-SPKC/normativie-akti/get/nid/1]. Accessed 19 August 2020.
[3] Food and Veterinary Service of Latvia. "Normative Documents". [http://www.pvd.gov.lv/partikas-un-veterinarais-

dienests/statiskas-lapas/normativie-akti?nid=2092#jump]. Accessed 19 August 2020.
[4] National Microbiology Reference Laboratory. [https://www.aslimnica.lv/lv/saturs/nacionala-mikrobiologijas-references-laboratorija]. Accessed 19 August 2020.
[5] Institute of Food Safety, Animal Health and the Environment (BIOR). [https://www.bior.lv/lv/par-institutu-bior/dokumenti]. Accessed 19 August 2020.
[6] Health Inspectorate of Latvia. "Normative documents". [http://www.vi.gov.lv/lv/sakums/normativie-akti]. Accessed 19 August 2020.
[7] Cabinet of Ministers of the Republic of Latvia. No.90 of 11 February 2012. "Procedures for the supervision and exchange of information on infectious diseases that affect both animals and people (Kārtība, kādā veic uzraudzību un informācijas apmaiņu par infekcijas slimībām, ar kurām slimo gan dzīvnieki, gan cilvēki)". [https://likumi.lv/ta/id/243913-kartiba-kada-veic-uzraudzibu-un-informacijas-apmainu-par-infekcijas-slimibam-ar-kuram-slimo-gan-dzivnieki-gan-cilveki]. Accessed 19 August 2020.
[8] Cabinet of Ministers of the Republic of Latvia. No.7 of 9 January 1999. "Procedures for Registration of Infectious Diseases (Infekcijas slimību reģistrācijas kārtība)". [https://likumi.lv/ta/id/20667-infekcijas-slimibu-registracijas-kartiba]. Accessed 19 August 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia makes de-identified health surveillance data publicly available on a weekly basis. Regulation No.7 on Procedures for Registration of Infectious Diseases (adopted 1999, last amended 2020) stipulates that information regarding the spread of infectious diseases and the epidemiological situation (retaining the confidentiality of personal statistical data) shall be available to all natural and legal persons [1]. De-identified health surveillance data on infectious diseases are publicly available on the Center for Disease Prevention and Control (CDPC) website. The website provides aggregate records (yearly, year to month, monthly) on the number of cases of all infectious diseases that have been registered in Latvia at both national and regional level since 2002, including poliomyelitis, E.coli, diphtheria, tuberculosis and others [2]. Since 2003, the CDPC also shares infectious disease statistics on a weekly basis, though the weekly data are limited to acute upper respiratory tract infections and influenza. [3]

[1] Cabinet of Ministers of the Republic of Latvia. No.7 of 9 January 1999. "Procedures for Registration of Infectious Diseases (Infekcijas slimību reģistrācijas kārtība)". [https://likumi.lv/ta/id/20667-infekcijas-slimibu-registracijas-kartiba]. Accessed 1 September 2020.
[2] The Center for Disease Prevention and Control of Latvia. "Statistics on Infectious Diseases". [https://www.spkc.gov.lv/lv/statistika-un-petijumi/infekcijas-slimibas/epidemiologijas-bileteni1]. Accessed 1 September 2020.
[3] The Center for Disease Prevention and Control of Latvia. "Reports on the Prevalence of Acute Upper Respiratory Tract Infections and Influenza". [https://www.spkc.gov.lv/lv/parskati-par-akutu-augsejo-elpcelu-infekciju-un-gripas-izplatibu]. Accessed 2 April 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

Latvia makes de-identified Covid-19 surveillance data publicly available. The de-identified Covid-19 surveillance data is publicly available on the Center for Disease Prevention and Control's website. The information is updated on a daily basis, providing the last 24 hours' Covid-19 surveillance data on the number of new cases and the total count of active cases; on the number of people tested; of people hospitalized and the severity of their illness; and a daily death count. The website also shares aggregate data of the indicators since the start of the pandemic, including data on the age and sex distribution of Covid-19 cases and fatalities [1]. The de-identified surveillance data is publicly available in accordance with Regulation No.7 on Procedures for Registration of Infectious Diseases (adopted 1999, last amended 2020). The regulation stipulates that the information regarding the spread of infectious diseases and the epidemiological situation (retaining the confidentiality of personal statistical data) shall be available to all natural and legal persons [2].

[1] The Center for Disease Prevention and Control of Latvia. "News about Covid-19". [https://www.spkc.gov.lv/lv/aktualitates-par-covid-19]. Accessed 1 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.7 of 9 January 1999. "Procedures for Registration of Infectious Diseases (Infekcijas slimību reģistrācijas kārtība)". [https://likumi.lv/ta/id/20667-infekcijas-slimibu-registracijas-kartiba] Accessed 1 September 2020.

2.4.4 Ethical considerations during surveillance

2.4.4a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has legislation that safeguards the confidentiality of identifiable health information for individuals, generated through health surveillance activities. The health surveillance system "VISUMS" is managed by the Center for Disease Prevention and Control (CDPC), which operates in accordance with the Law On the Rights of Patients (adopted 2010, last amended 2018) [1, 2]. The law stipulates that information regarding a patient may only be disclosed with his or her written consent or in the cases prescribed by the law [2]. Additionally, the Personal Data Processing Law (adopted 2018, last amended 2019) regulates the processing of personal health data [3, 4]. In addition, the confidentiality of identifiable health information for individuals is safeguarded by the European Union's General Data Protection Regulation, which came into force in May 2018 [5].

[1] State's information system register. "State Infectious Diseases Supervision and Monitoring System (Valsts infekcijas slimību uzraudzības un monitoringa sistēma (VISUMS))". [https://data.gov.lv/dati/lv/dataset/visr/resource/d34451d4-3a5a-41b0-9bb7-403201237e69]. Accessed 1 September 2020.
[2] Parliament of the Republic of Latvia. 1 March 2010. "Law On the Rights of Patients (Pacientu tiesību likums)". [https://likumi.lv/ta/id/203008-pacientu-tiesibu-likums]. Accessed 1 September 2020.
[3] Parliament of the Republic of Latvia. 5 July 2018. "Personal Data Processing Law (Fizisko personu datu apstrādes likums)". [https://likumi.lv/ta/id/300099]. Accessed 1 September 2020.
[4] Center for Disease Prevention and Control of Latvia. "Legislation regulating the operation of the Center for Disease

Prevention and Control". [https://www.spkc.gov.lv/lv/par-SPKC/normativie-akti/get/nid/1]. Accessed 1 September 2020.
[5] Official Journal of the European Union. 27 April 2016. “Regulation (EU) 2016/679 of the European Parliament and of the council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)”. [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016R0679&from=EN]. Accessed 1 September 2020.

2.4.4b

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has legal provisions safeguarding the confidentiality of identifiable health information for individuals. Although Latvia's legislation on the confidentiality of identifiable health information does not directly mention protection from cyber attacks, the electronic surveillance system "VISUMS" is integrated into the State Information System "VIS", and the Cyber Security Strategy of Latvia for 2019-2022 emphasizes the importance of protecting the "VIS" system. [1] The document does not provide an individual protection strategy for the "VIS" system, but incorporates it in the state's general information and communication technology security strategy [1]. The safety of information and communication technologies is regulated by the Law on the Security of Information Technologies (adopted 2011, last amended 2018) and monitored by the National Information Technology Security Board (NITSB). The NITSB includes both the head of the National Cybersecurity Policy Coordination Unit and the deputy state secretary for resource and change management of the Ministry of Health [2, 3]. In addition, the confidentiality of identifiable health information for individuals is safeguarded by the European Union's General Data Protection Regulation (GDPR), which came into force in May 2018. GDPR contains stipulations around network and information security, including a requirement that data held by state authorities must be overseen by a dedicated data protection officer who is proficient in dealing with cyber attacks and a requirement to inform all affected individuals within 72 hours of discovering a data breach [4].

[1] Ministry of Defense of the Republic of Latvia. 17 September 2019. "Cyber Security Strategy of Latvia 2019-2022 (Latvijas kiberdrošības stratēģija 2019.-2022.gadam)". [https://www.mod.gov.lv/sites/mod/files/document/kiberstrategija.pdf]. Accessed 1 September 2020.
[2] Parliament of the Republic of Latvia. 1 February 2011. "Law On the Security of Information Technologies (Informācijas tehnoloģiju drošības likums)". [https://likumi.lv/ta/id/220962-informacijas-tehnologiju-drosibas-likums]. Accessed 1 September 2020.
[3] Prime Minister. No. 222 of 19 August 2019. "About the National Information Technology Security Board (Par Nacionālo informācijas tehnoloģiju drošības padomi)". [https://likumi.lv/ta/id/308848-par-nacionalo-informacijas-tehnologiju-drosibas-padomi]. Accessed 1 September 2020.
[4] Official Journal of the European Union. 27 April 2016. “Regulation (EU) 2016/679 of the European Parliament and of the council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation)”. [https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32016R0679&from=EN]. Accessed 1 September 2020.

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 2

There is evidence of cooperation to share surveillance data during a public health emergency with other countries in the region, including during an active emergency, and the cooperation agreement covers more than one disease. As a member of the European Union (EU), Latvia is part of the European Center for Disease Prevention and Control's Early Warning and Response System (EWRS). The EWRS is a platform to "allow exchange of information on risk assessment and risk management for more timely, efficient and coordinated public health action", which is "used for notifications on outbreaks, exchanging information and decisions about the coordination of measures among Member States". [1] Over the years, it has played an important role in supporting response to health crises related to severe acute respiratory syndrome (SARS), Ebola, Avian Influenza and other communicable diseases [1]. Article 9 of chapter IV of the EU Decision on Serious Cross-Border Threats to Health notes that the European Commission "shall make available to the national competent authorities through the EWRS any information that may be useful for coordinating the response [..] including information related to serious cross-border threats to health and public health measures related to serious cross-border threats to health transmitted through rapid alert and information systems established under other provisions of Union law or the Euratom Treaty" [2].

[1] European Center for Disease Prevention and Control. “Early Warning and Response System (EWRS).” [https://ecdc.europa.eu/en/early-warning-and-response-system-ewrs]. Accessed 1 September 2020.
[2] Official Journal of the European Union. 5 November 2013. "Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on Serious Cross-Border Threats to Health and Repealing Decision No 2119/98/EC". [https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/decision_serious_crossborder_threats_22102013_en.pdf]. Accessed 1 September 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

There is no public evidence that Latvia has a national system to provide support at the sub-national level to conduct contact tracing in the event of a public health emergency. According to section 7 of the Epidemiological Safety Law (adopted 1998, last amended 2020), it is the competence of the Center for Disease Prevention and Control (CDPC) to detect and trace persons who have been in direct or indirect contact with an infected person [1]. The law, however, does not mention procedures for conducting contact tracing at the sub-national level in case of a public health emergency. Furthermore, the

State Disaster Medicinal Plan (last amended 2020) is an all-hazard plan covering public health emergencies, which describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. The plan's attachment no.2 contains an action plan for responding to a public health emergency caused by dangerous and other infectious diseases and its attachment no.6 is dedicated to an emergency caused by a disease of unknown origin. Both of the attachments state that the CDPC is responsible for contact tracing in the case of a health emergency [2]. However, there is no information on mechanisms for providing the support at the sub-national level in either attachment. There is no public evidence of such a system being in place on the websites of the CDPC or Ministry of Health [3, 4].

[1] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 22 September 2020.
[2] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 22 September 2020.
[3] Center for Disease Prevention and Control of Latvia. "About the Center/Normative Documents". [https://www.spkc.gov.lv/lv/normativie-akti]. Accessed 22 September 2020.
[4] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 22 September 2020.

2.5.1b

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

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

Current Year Score: 2

Latvia provides nationwide wraparound services that include economic support and medical attention to enable cases and suspected cases to self-isolate during an epidemic. Section 11 of the Law on Maternity and Sickness Insurance (adopted 1997, last amended 2020), stipulates that "sickness benefit shall be granted if a person is absent from work and thereby loses income to be earned from paid work, or if a self-employed person loses income" in case of sickness or when isolation is required due to quarantine [1]. To receive the financial support, the person is required to obtain a sick-leave certificate from a doctor or doctor's assistant on the basis of a personal inspection and examination, in accordance with the procedures set out in Regulation no.152 on Procedures for Issuance of Sick-Leave Certificates (adopted 2001, last amended 2020) [2]. Additionally, this regulation stipulates that the certificate can be issued without a personal inspection if the person has been diagnosed with a dangerous infectious disease or if the Center for Disease Prevention and Control epidemiologist has requested the person be quarantined [2]. Sickness benefit is granted from the second day of incapacity for work in the amount of 80% of the recipient's average salary [1]. In cases related to the Covid-19 pandemic, sick-leave certificates can be issued to people that have been diagnosed with the disease or those who have been in contact with a confirmed Covid-19 patient and have therefore been ordered to quarantine themselves [1]. Furthermore, Covid-19 patients who can be treated at home are required to contact their doctor on a daily basis until their recovery; confirmed Covid-19 patients can seek the assistance of the municipal social service to obtain food and basic necessities [3]. Persons who have been in contact with a Covid-19 patient and have been ordered to quarantine at home are required to be contacted by their general practitioner at least once a day to ascertain their health condition (body temperature, complaints) as stipulated in Regulation no.360 on Epidemiological Safety Measures for the Containment of the Spread of Covid-19 Infection (adopted 2020) [4]. During the Covid-19 pandemic, the Ministry of Education and Science also provides psycho-emotional support (free of charge) via

telephone, e-mail and Skype [5].

[1] Parliament of the Republic of Latvia. 1 January 1997. "On Maternity and Sickness Insurance (Par maternitātes un slimības apdrošināšanu)". [https://likumi.lv/ta/id/38051-par-maternitates-un-slimibas-apdrosinasanu]. Accessed 22 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.152 of 1 May 2001. "Procedures for Issuance of Sick-Leave Certificates (Darbnespējas lapu izsniegšanas un anulēšanas kārtība)". [https://likumi.lv/ta/id/6675-darbnespejas-lapu-izsniegsanas-un-anulesanas-kartiba]. Accessed 22 September 2020.
[3] Informative page about the spread of Covid-19 in Latvia. "Frequently Asked Questions and Answers". [https://covid19.gov.lv/index.php/biezak-uzdotie-jautajumi]. Accessed 22 September 2020.
[4] Cabinet of Ministers of the Republic of Latvia. No.360 of 9 June 2020. "Epidemiological Safety Measures for the Containment of the Spread of Covid-19 Infection (Epidemioloģiskās drošības pasākumi Covid-19 infekcijas izplatības ierobežošanai)". [https://likumi.lv/ta/id/315304-epidemiologiskas-drosibas-pasakumi-covid-19-infekcijas-izplatibas-ierobezosanai]. Accessed 22 September 2020.
[5] Informative page about the spread of Covid-19 in Latvia. "Psycho-emotional Support (Psihoemocionāls atbalsts)". [https://covid19.gov.lv/covid-19/veseliba/psihoemocionals-atbalsts]. Accessed 22 September 2020.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia makes de-identified data on contact tracing efforts for Covid-19 available via daily reports on government websites. The daily reports, available on the website of the Center for Disease Prevention and Control, provide information on number of Covid-19 cases whose source of infection has been determined and also indicates the number of ongoing tracking efforts [1].

[1] The Center for Disease Prevention and Control of Latvia. "News about Covid-19". [https://www.spkc.gov.lv/lv/aktualitates-par-covid-19]. Accessed 1 September 2020.

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 1

Latvia has a joint plan between the public health system and border control authorities to monitor suspected and potential cases for international travelers in response to an active public health emergency, but not in preparation for future public health emergencies. A communication plan is laid out in Regulation No.360 on Epidemiological Safety Measures for the Containment of the Spread of Covid-19 Infection (entry into force as of 10 June 2020) and has been developed in accordance

with the State Civil Protection Plan (last updated 2020), which details the Civil Protection and Disaster Management System for a wide range of threats and includes planning for pandemics [1, 2]. The Civil Protection Plan, however, does not provide a detailed plan of a joint cooperation in preparation for future public health emergencies. [2] As of 16 July 2020, in accordance with Regulation no.360, all international travelers who use services of international carriers must complete a questionnaire, issued by the Ministry of Transport, indicating their personal and contact information, the address of the current place of residence where the person can be reached and countries visited during the last 14 days before the arrival in Latvia [3]. The relevant carrier is responsible for handing over the completed statement to the State Border Guard and to the Center for Disease Prevention and Control (CDPC) as soon as possible. The State Border Guard receives questionnaires of those travelers who have stayed in a country that is subject to the special precautionary and restrictive measures (as outlined on the CDPC website) and passes them on to the State Police that performs travelers' self-isolation monitoring. [4] Questionnaires of travelers who have stayed in a country that is not subject to the precautionary and restrictive measures are submitted to the CDPC to facilitate prompt contact tracing if necessary [1, 3]. No cooperation plan for future public health emergencies could be located on the websites of the Ministry of Health, the Center for Disease Prevention and Control, State Emergency Medical Service, or the State Border Guard [5, 6, 7, 8].

[1] Cabinet of Ministers of the Republic of Latvia. No.360 of 9 June 2020. "Epidemiological Safety Measures for the Containment of the Spread of Covid-19 Infection (Epidemioloģiskās drošības pasākumi Covid-19 infekcijas izplatības ierobežošanai)". [https://likumi.lv/ta/id/315304-epidemiologiskas-drosibas-pasakumi-covid-19-infekcijas-izplatibas-ierobezosanai]. Accessed 22 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 22 September 2020.
[3] Ministry of Transport of the Republic of Latvia. 16 July 2020. "Questionnaire to be Filled in by Persons Entering Latvia Using Services of International Carriers". [https://www.sam.gov.lv/lv/jaunums/anketa-kuru-aizpilda-persona-kas-iecelo-latvija-izmantojot-starptautisko-parvadataju-pakalpojumus]. Accessed 22 September 2020.
[4] The Center for Disease Prevention and Control of Latvia. "Country statistics of Covid-19 cases". [https://www.spkc.gov.lv/lv/valstu-saslimstibas-raditaji-ar-covid-19-0]. Accessed 22 September 2020.
[5] Ministry of Health of the Republic of Latvia. [https://www.vm.gov.lv/]. Accessed 7 April 2021.
[6] The Center for Disease Prevention and Control of Latvia. [[https://www.spkc.gov.lv/]. Accessed 7 April 2021.
[7] State Emergency Medical Service of Latvia. [https://www.nmpd.gov.lv/lv]. Accessed 7 April 2021.
[8] State Border Guard of Latvia. [https://www.rs.gov.lv/lv]. Accessed 7 April 2021.

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

No applied epidemiology training program (such as the Field Epidemiology Training Program (FETP)) is available in Latvia, but the Latvian government provides resources to send citizens to participate in such programs abroad. According to the Joint External Evaluation (JEE), conducted in May 2017, there is no FETP available in the country, but the Latvian government does provide resources to send citizens to FETPs abroad [1]. There is no publicly available information on available FETPs on the websites of the Ministry of Health or Center for Disease Prevention and Control [2, 3]. Latvians, however, can apply to the European Program for Intervention Epidemiology Training (EPIET). Participation in EPIET is funded by states that send their citizens on the program (including Latvia), the European Center for Disease Prevention and Control and the participating training sites in the member states [4]. According to the JEE, whilst Latvia has had four graduates from EPIET, only one was currently working in the country, highly skilled workforce retention being a significant challenge due to low salaries, with many leaving the country to find better-paid employment elsewhere [1].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 2 September 2020.
[2] Ministry of Health of the Republic of Latvia. [http://www.vm.gov.lv/lv/nozare/]. Accessed 2 September 2020.
[3] Center for Disease Prevention and Control of Latvia. [https://www.spkc.gov.lv/lv/profesionali/]. Accessed 2 September 2020.
[4] European Center for Disease Prevention and Control. "Call for ECDC Fellowship Program (EPIET and EUPHEM paths)". [https://ecdc.europa.eu/en/about-us/work-us/call-ecdc-fellowship-programme-epiet-and-euphem-paths]. Accessed 2 September 2020.

2.6.1b

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

Yes = 1 , No = 0

Current Year Score: 1

Field epidemiology training programs (FETP) available in Latvia are explicitly inclusive of animal health professionals. Latvia has access to the European Program for Intervention Epidemiology Training (EPIET), which is inclusive of animal health professionals. [1] Participation in EPIET is funded by states which send their citizens on the program (including Latvia), the European Center for Disease Prevention and Control and the participating training sites in the member states [1]. According to the Joint External Evaluation, whilst Latvia has had four graduates from EPIET, only one is currently working in the country, highly skilled workforce retention being a significant challenge due to low salaries, with many leaving the country to find better-paid employment elsewhere [2].

[1] European Center for Disease Prevention and Control. "Call for ECDC Fellowship Program (EPIET and EUPHEM paths)". [https://ecdc.europa.eu/en/about-us/work-us/call-ecdc-fellowship-programme-epiet-and-euphem-paths]. Accessed 2 September 2020.
[2] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 2 September 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 2

Latvia has an overarching national public health emergency response plan addressing communicable diseases with pandemic potential. The Joint External Evaluation, conducted in May 2017, states that Latvia has a such a plan [1]. The State Disaster Medicine Plan (last amended 2020), publicly available on the State Emergency Medical Service website, is all-hazards in its approach and addresses diseases with pandemic potential; it describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity [2]. In addition, the overall state emergency preparedness plan, the State Civil Protection Plan (adopted 2020), which details the Civil Protection and Disaster Management System for a wide range of threats, includes planning for pandemics; attachment no. 8 is specifically dedicated to epidemics, detailing preventive, readiness, response and emergency measures for the elimination of the consequences of an epidemic. The State Civil Protection Plan is publicly available on the policy planning documents database. [3]

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 2 September 2020.
[2] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 2

September 2020.
[3] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". Attachment No.8: "Epidemics (Epidēmijas)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 2 September 2020.

3.1.1b

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

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

Current Year Score: 1

Latvia's overarching plan has been updated in the last 3 years. The State Disaster Medicine Plan, an all-hazard plan (including pandemics) that describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity, was last updated on 14 May 2020 [1]. According to the Joint External Evaluation, conducted in May 2017, the plan is updated annually and adds new dimensions as required [2]. The State Civil Protection Plan, an overall emergency preparedness plan that includes planning for pandemics, was last updated on 26 August 2020 [3].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 2 September 2020.
[2] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 2 September 2020.
[3] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". Attachment No.8: "Epidemics (Epidēmijas)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 2 September 2020.

3.1.1c

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

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

Current Year Score: 0

Latvia's overarching plans do not include consideration of pediatric or other vulnerable populations. There is no explicit consideration of pediatric or other vulnerable populations in the "State Disaster Medicine Plan" (last amended 2020), which is an all-hazard plan describing the objectives of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity [1]. Similarly, there are no such considerations in the State Civil Protection Plan (adopted 2020), which is an overall state emergency preparedness plan that also includes planning for pandemics [2].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 2 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns) Attachment No.8: "Epidemics (Epidēmijas)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-

planu]. Accessed 2 September 2020.

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 1

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

Latvia does not have a specific mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. No evidence of such a mechanism can be found on the Ministry of Health website [1]. However, the State Disaster Medicine Plan (last amended 2020), which is an all-hazard plan that describes the objectives of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity, stipulates that the entity managing a disaster has the right to conclude service and cooperation agreements or other arrangements in the field of civil protection and disaster management with legal and natural persons in accordance with the Civil Protection and Disaster Management Law (adopted 2016, last amended 2016) [2, 3]. On the website of the State Emergency Medical Service, which is the health sector lead at the operational level during health emergencies, there is no evidence of outbreak emergency cooperation agreements or other arrangements concluded with the private sector [4, 5].

[1] Ministry of Health of the Republic of Latvia. "Agreements and Regulations". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 22 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". Attachment No.8: "Epidemics (Epidēmijas)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 22 September 2020.
[3] Parliament of the Republic of Latvia. 1 October 2016. "Civil Protection and Disaster Management Law (Civilās aizsardzības un katastrofas pārvaldīšanas likums)". [https://likumi.lv/ta/id/282333-civilas-aizsardzibas-un-katastrofas-parvaldisanas-likums]. Accessed 22 September 2020.
[4] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 22 September 2020.
[5] State Emergency Medical Service of Latvia. "Disaster Medicine System Planning and Coordination". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 22 September 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 2

Latvia has a policy in place to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for more than one disease. NPI implementation guidelines are integrated in chapter 5 of the Epidemiological Safety Law (adopted 1998, last amended 2020), and pertain to a multitude of infectious diseases with epidemic potential, such as measles, yellow fever, poliomyelitis and listeriosis [1]. The safety measures prescribe restrictions on public events and economic activity, performing disinfection, disinsection and deratization in objects or territories where required, introducing quarantine measures to prevent spread, and other procedures [1]. Regulation No.360 on Epidemiological Safety Measures for the Containment of the Spread of Covid-19 Infection (adopted 2020) sets out the epidemiological safety measures specifically for containing the spread of Covid-19. The basic principles on which the measures are based are social distancing and hygiene. The regulation provides an extensive list of NPIs that ought to be implemented, such as maintaining two-meter physical distance where possible, restricting public gatherings, ensuring conditions for correct hand and respiratory hygiene, regularly cleaning and disinfecting premises and surfaces (e.g. in workplaces, taxis, swimming pools, public transport) [3].

[1] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 23 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.360 of 9 June 2020. "Epidemiological Safety Measures for the Containment of the Spread of Covid-19 Infection (Epidemioloģiskās drošības pasākumi Covid-19 infekcijas izplatības ierobežošanai)". [https://likumi.lv/ta/id/315304-epidemiologiskas-drosibas-pasakumi-covid-19-infekcijas-izplatibas-ierobezosanai]. Accessed 23 September 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

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

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

Current Year Score: 1

In the past year, Latvia has activated its national emergency response plan for an infectious disease outbreak, but there is no public evidence that the country has completed a national-level biological threat-focused exercise.

On 12 March 2020, Latvia declared a state of emergency throughout the state territory in order to contain the spread of

Covid-19, on the basis of section 4(e) of the Civil Protection and Disaster Management Law, the Law on Emergency Situation and State of Exception and the Epidemiological Safety Law [1]. The Civil Protection and Disaster Management Law (adopted 2016, last amended 2016) determines the competence of the system of civil protection and disaster management subjects depending on the type of disaster, disasters related to epidemics of human infectious diseases being coordinated by the Ministry of Health (MoH) [2].

In anticipation of Covid-19 reaching Latvia, on 30 January 2020 the MoH organized the first meeting of the State Operational Medical Commission, responsible of ensuring coordinated operation of health sector institutions in an emergency medical situation and in an emergency public health situation, the Commission operating in accordance with the State Disaster Medicine Plan (last amended 2020), an all-hazard plan that covers public health emergencies and describes the objectives of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity [3]. The plan's attachment no. 2 specifically covers public health emergencies caused by dangerous and other infectious diseases [4].

Additionally, on 10 June 2020, following the revocation of the state of emergency, the Cabinet of Ministers adopted the Law on the Management of the Spread of Covid-19 Infection, which sets out measures for the prevention and management of the outbreak, covering the rights and obligations of public authorities and private individuals with the aim of preventing another state of emergency [5].

The World Health Organization's webpage dedicated to simulation exercises does not contain information on Latvia having conducted or planning to conduct a biological threat-focused exercise [6].

[1] Cabinet of Ministers of the Republic of Latvia. No.103 of 12 March 2020. "Regarding Declaration of the Emergency Situation (Par ārkārtējās situācijas izsludināšanu)". [https://likumi.lv/ta/id/313191-par-arkartejas-situacijas-izsludinasanu]. Accessed 23 September 2020.
[2] Parliament of the Republic of Latvia. 1 October 2016. "Civil Protection and Disaster Management Law (Civilās aizsardzības un katastrofas pārvaldīšanas likums)". [https://likumi.lv/ta/id/282333-civilas-aizsardzibas-un-katastrofas-parvaldisanas-likums]. Accessed 23 September 2020.
[3] Ministry of Health of The Republic of Latvia. 30 January 2020. "The readiness of the services for the detection and treatment of coronavirus will be discussed in the State Operational Medical Commission (Dienestu gatavību koronavīrusa atklāšanai un ārstēšanai apspriedīs Valsts operatīvajā medicīniskajā komisijā)". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/6157_dienestu_gatavibu_koronovirusa_atklasanai_un_arstesanai_app/]. Accessed 23 September 2020.
[4] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 23 September 2020.
[5] Cabinet of Ministers of the Republic of Latvia. 10 June 2020. "Law on the Management of the Spread of Covid-19 Infection (Covid-19 infekcijas izplatības pārvaldības likums)". [https://likumi.lv/ta/id/315278-covid-19-infekcijas-izplatibas-parvaldibas-likums]. Accessed 1 October 2020.
[6] World Health Organization (WHO). "Simulation Exercises". [https://extranet.who.int/sph/simulation-exercise]. Accessed 23 September 2020.

3.2.1b

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

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

Current Year Score: 0

There is no public evidence that, in the past year, Latvia has identified gaps and best practices in response to a public health emergency caused by an infectious disease or through a biological-threat focused exercise, or that the country has developed a plan to improve its response capabilities. The World Health Organization (WHO) webpage dedicated to after-action reviews (AAR) does not list Latvia as either having conducted or planning to conduct an AAR [1]. No evidence of Latvia having conducted a biological-threat focused exercise or having developed an AAR can be located on the WHO country or regional page [2, 3]. Furthermore, the websites of the Ministry of Health and Ministry of Agriculture have been found to contain no such information either [4, 5]. In response to the Covid-19 pandemic, Latvia established an Inter-Institutional Coordination Group (IICG), which is responsible for improving the state's pandemic response capability [6]. Whilst the protocol archive of the IICG's meetings confirm that a multitude of regulations have been amended and new procedures introduced, these pertain only to the Covid-19 response measures and capabilities [7].

[1] World Health Organization (WHO). "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed 14 October 2020.
[2] World Health Organization (WHO). "Country page for Latvia". [http://www.euro.who.int/en/countries/latvia]. Accessed 14 October 2020.
[3] World Health Organization (WHO). "European Region. News. Events. Publications". [http://www.euro.who.int/en/home]. Accessed 14 October 2020.
[4] Ministry of Health of the Republic of Latvia. "Press Releases. Normative Documents". [https://www.vm.gov.lv/lv/]. Accessed 14 October 2020.
[5] Ministry of Agriculture of the Republic of Latvia. "Press Releases. Normative Documents". [https://www.zm.gov.lv/]. Accessed 14 October 2020.
[6] Prime Minister. No.2020/1.2.1.-84 of 10 July 2020. "On the Interinstitutional Coordination Group (Par starpinstitūciju darbības koordinācijas grupu)". [https://m.likumi.lv/ta/id/316016-par-starpinstituciju-darbibas-koordinacijas-grupu]. Accessed 14 October 2020.
[7] State Fire and Rescue Service of Latvia. "Interinstitutional Coordination Group for Managing the Spread of Covid-19 (Starpinstitūciju darbības koordinācijas grupa Covid-19 ierobežošanai)". [https://www.vugd.gov.lv/lat/par_vugd/darbibas_sferas/covid_19]. Accessed 14 October 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 in the past year Latvia has undergone a national-level biological threat-focused exercise that has included private sector representatives. According to the World Health Organization (WHO) website, Latvia has not conducted a biological threat-focused IHR exercise or an after-action review (AAR) in the past year, and there is no indication that Latvia is planning to conduct one [1, 2, 3, 4]. The latest available Biennial Collaborative Agreement between the Ministry of Health of Latvia and the Regional Office for Europe of the WHO 2020/2021, which outlines a practical framework for collaboration between Latvia's health authorities and the Secretariat of the WHO Regional Office for Europe, does not

include any reference to planned AAR or biological threat-focused IHR exercises [5]. On the websites of the Ministry of Health and State Emergency Medical Service, which is the health sector lead at the operational level during health emergencies, there is no evidence that such exercise has taken place or is planned to be conducted [6, 7].

[1] World Health Organization (WHO). "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed 17 September 2020.
[2] World Health Organization (WHO). "Country page for Latvia". [http://www.euro.who.int/en/countries/latvia]. Accessed 17 September 2020.
[3] World Health Organization (WHO). "European Region. News. Events. Publications". [http://www.euro.who.int/en/home]. Accessed 17 September 2020.
[4] World Health Organization (WHO). "International Health Regulations (IHR). Monitoring and Evaluation. Simulation exercises". [http://www.euro.who.int/en/health-topics/emergencies/international-health-regulations/monitoring-and-evaluation/simulation-exercises]. Accessed 17 September 2020.
[5] World Health Organization (WHO). Country website. Areas of Work. "Biennial Collaborative Agreement between the Ministry of Health of Latvia and the Regional Office for Europe of the World Health Organization 2020/2021". [https://www.euro.who.int/en/countries/latvia/areas-of-work/biennial-collaborative-agreement-bca-2020-2021#457901]. Accessed 17 September 2020.
[6] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 17 September 2020.
[7] State Emergency Medical Service of Latvia. "Press Releases". [http://www.nmpd.gov.lv/nmpd/preses_relizes/]. Accessed 17 September 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that Latvia has a general emergency operations center (EOC) or an EOC dedicated to public health emergencies. Public emergencies are managed by a system of civil protection, disaster prevention and response mechanisms, set out by the State Civil Protection Plan (adopted 2020) in accordance with the Civil Protection and Disaster Management Law (adopted 2016, last amended 2016). The State Civil Protection Plan, which is an overall emergency preparedness plan, includes detailed schemes of cooperation and assigns responsibilities to ensure the successful management of disasters, depending on the type of disaster. For each hazard stipulated in the Plan, the role of the "Decision Maker" is prescribed to a state institution, which is responsible for determining preventive, preparedness and response measures for the relevant threat. For example, in the event of an epidemic, the Ministry of Health is responsible for the organization of the disaster medical system and the State Operational Medical Commission, established by the Cabinet of Ministers, is responsible for coordinating the activities of health sector institutions [1, 2]. There is no evidence of a general EOC or an EOC dedicated to public health emergencies in the Civil Protection and Disaster Management Law or in the State Civil Protection Plan [1, 2]. No evidence of an EOC can be found on the websites of the Ministry of Health, Ministry of the Interior or State Fire and Rescue Service (the institution responsible for managing, coordinating and controlling the operation of the system of civil protection) [3, 4, 5].

[1] Parliament of the Republic of Latvia. 1 October 2016. "Civil Protection and Disaster Management Law (Civilās aizsardzības un katastrofas pārvaldīšanas likums)". [https://likumi.lv/ta/id/282333-civilas-aizsardzibas-un-katastrofas-parvaldisanas-likums]. Accessed 31 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [http://polsis.mk.gov.lv/documents/3736]. Accessed 31 August 2020.
[3] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 31 August 2020.
[4] Ministry of the Interior of the Republic of Latvia. "Sectoral Policy/Civil protection, fire safety, rescue". [https://www.iem.gov.lv/lv/civila-aizsardziba-ugunsdrosiba-ugunsdzesiba-un-glabsana]. Accessed 31 August 2020.
[5] State Fire and Rescue Service of Latvia. "Civil Protection". [http://www.vugd.gov.lv/lat/drosibas_padomi/civila_aizsardziba/18607-civila-aizsardziba]. Accessed 31 August 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

Latvia's Emergency Operations Center is not required to conduct a drill at least once per year, nor is there evidence that they conduct a health-specific drill yearly. According to the webpage dedicated to Civil Protection on the website of the State Fire and Rescue Service (the institution responsible for managing, coordinating and controlling the operation of the system of civil protection), national- and regional-level disaster drills are organized no less than once every four years [1]. This information corresponds to Regulation No.341 on Provisions on the Types of Training and Organization of Civil Protection and Disaster Management Training (adopted 2017, last amended 2017), which stipulates the same [2]. The last national disaster level drill, called "STORMEX", was conducted from 21 to 26 October 2016 and involved more than 50 public institutions, municipalities and other institutions in 15 different practical and theoretical episodes [3]. No evidence that a drill for a public health emergency scenario is conducted yearly can be found on the websites of the Ministry of Health (including its annual reports), State Fire and Rescue Service, or the State Emergency Medical Service [4, 5, 6].

[1] State Fire and Rescue Service of Latvia. Civil Protection. [http://www.vugd.gov.lv/lat/drosibas_padomi/civila_aizsardziba/18607-civila-aizsardziba]. Accessed 17 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.341 of 23 June 2017. "Provisions on the types of training and organization of civil protection and disaster management training (Noteikumi par civilās aizsardzības un katastrofas pārvaldīšanas mācību veidiem un organizēšanas kārtību)". [https://likumi.lv/ta/id/291706-noteikumi-par-civilas-aizsardzibas-un-katastrofas-parvaldisanas-macibu-veidiem-un-organizesanas-kartibu]. Accessed 17 September 2020.
[3] State Fire and Rescue Service of Latvia. "STORMEX 2016". [http://www.vugd.gov.lv/lat/aktualitates/zinas/14808-sakas-valsts-meroga-civilas-aizsardzibas-macibas-stormex-2016]. Accessed 17 September 2020.
[4] Ministry of Health of the Republic of Latvia. "Annual Reports". [https://www.vm.gov.lv/lv/ministrija/gada_publiskie_parskati/]. Accessed 15 October 2020.
[5] State Fire and Rescue Service of Latvia. "News". [https://www.vugd.gov.lv/lv/jaunumi]. Accessed 15 October 2020.
[6] State Emergency Service of Latvia. "Press Releases". [http://www.nmpd.gov.lv/nmpd/preses_relizes/]. Accessed 15 October 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario has taken place in the last year. No such evidence can be located on the websites of the Ministry of Health, State Emergency Medical Service, Ministry of the Interior Affairs or Ministry of Defense [1, 2, 3, 4]. On 12 March 2020, the government of Latvia declared nationwide state of emergency due to the Covid-19 outbreak, entering into force with an immediate effect, but there is no evidence that the emergency response was activated within 120 minutes [5].

[1] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 15 October 2020.
[2] State Emergency Medical Service. "Press Releases". [http://www.nmpd.gov.lv/nmpd/preses_relizes/]. Accessed 15 October 2020.
[3] Ministry of the Interior of the Republic of Latvia. "News. Normative Documents".[https://www.iem.gov.lv/lv]. Accessed 15 October 2020.
[4] Ministry of Defense of the Republic of Latvia. "News. Normative Documents". [https://www.mod.gov.lv/]. Accessed 15 October 2020.
[5] Cabinet of Ministers of the Republic of Latvia. No.103 of 12 March 2020. "Regarding Declaration of the Emergency Situation (Par ārkārtējās situācijas izsludināšanu)". [https://likumi.lv/ta/id/313191-par-arkartejas-situacijas-izsludinasanu]. Accessed 15 October 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

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

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

Current Year Score: 1

There is no public evidence that an exercise to respond to a potential deliberate biological event has been carried out. Evidence of such an exercise is absent from the websites of the Ministry of Health, the State Emergency Medical Service, and the State Fire and Rescue Service [1, 2, 3]. However, Latvia has guidelines on the cooperation of public health and security authorities in responding to a potential deliberate biological event. The guidelines are laid out in regulation no. 12, "Instructions Regarding Actions of Responsible Institutions in the Event of Finding a Substance or Object of Unknown Origin if

It is Suspected that It Contains Explosive, Radioactive, Dangerous Chemical or Biological Substances, as well as if Indications of Terrorist Attack are Detected", (adopted 2008, last amended 2012) which prescribe actions for the State Police, as well as the State Fire and Rescue Service, the Center of Emergency and Disaster Medicine, the Emergency Medical Care Service, the Food and Veterinary Service, the Security Police and others [4]. The Instructions stipulate that if there are suspicions of the presence of a biological agent in a substance or object found, the National Diagnostic Center of the Food and Veterinary Service shall organize the laboratory investigation of the substance. If, following an initially investigation at the place of an incident, suspicions of a potential terrorist attack in which biological substances have been utilized are substantiated, the responsible official of the State Police inform the Security Police without delay [4].

[1] Ministry of Health of the Republic of Latvia. "Events". [http://www.vm.gov.lv/lv/aktualitates/]. Accessed 31 August 2020.
[2] State Emergency Medical Service of Latvia. "Archive". [http://www.nmpd.gov.lv/nmpd/arhivs/]. Accessed 31 August 2020.
[3] State Fire and Rescue Service of Latvia. "News". [http://www.vugd.gov.lv/lat/aktualitates/zinas]. Accessed 31 August 2020.
[4] Cabinet of Ministers of the Republic of Latvia. No.12 of 6 September 2008. "Instruction Regarding Actions of Responsible Institutions in the Event of Finding a Substance or Object of Unknown Origin if It is Suspected that It Contains Explosive, Radioactive, Dangerous Chemical or Biological Substances, as well as if Indications of Terrorist Attack are Detected (Instrukcija par atbildīgo institūciju rīcību nezināmas izcelsmes vielas vai priekšmeta atrašanas gadījumā, ja ir aizdomas, ka tas satur sprādzienbīstamas, radioaktīvas, bīstamas ķīmiskas vai bioloģiskas vielas, kā arī ja konstatētas terora akta pazīmes)". [https://likumi.lv/ta/id/180617-instrukcija-par-atbildigo-instituciju-ricibu-nezinamas-izcelsmes-vielas-vai-prieksmeta-atrasanas-gadijuma-ja-ir-aizdomas]. Accessed 31 August 2020.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

Latvia does not have a risk communication plan for health emergencies that outlines how messages will reach populations and sectors with different communication needs. The State Disaster Medicine Plan (last amended 2020), an all-hazard plan that covers public health emergencies, describes the objectives of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. The Plan's Attachment No.11, titled "Information, cooperation and delegation scheme for communication professionals in emergencies", is dedicated to emergency communication and explicitly covers public health emergencies [1]. However, the scheme does not specify communication towards populations or sectors with different communication needs. It stipulates that the State Operative Medical Committee instructs the communication department in the Ministry of Health according to the communication role (management) scheme, and the latter coordinates messaging and communication to media and the public in concert with other government agencies without providing any guidelines on how to reach different target audiences [1]. No evidence of a risk communication plan that different communication needs can be located on the website of the Ministry of Health or the State Emergency Medical Service, which is the health sector lead at the operational level during health emergencies [2, 3].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". Attachment No.11. "Information, cooperation and delegation scheme for communication professionals in emergencies (Informēšanas, sadarbības un deleģēšanas shēma komunikācijas speciālistiem ārkārtas situācijās)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 17 September 2020.
[2] Ministry of Health of the Republic of Latvia. "Normative documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 14 October 2020.
[3] State Emergency Medical Service of Latvia. "Normative documents". [http://www.nmpd.gov.lv/nmpd/NMPD/normativie_akti_un_attistibas_planosanas_dokumenti/]. Accessed 14 October 2020.

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has a risk communication plan for health emergencies. This is reported by the Joint External Evaluation, conducted in May 2017 [1]. The Ministry of Health has developed a crisis communication plan, as part of the "State Disaster Medicine Plan" (last amended 2020), an all-hazard plan that covers public health emergencies and describes the objectives of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. The Plan's Attachment No.11, entitled "Information, cooperation and delegation scheme for communication professionals in emergencies", is dedicated to emergency communication and explicitly covers public health emergencies. It stipulates that the State Operative Medical Committee instructs the communication department in the Ministry of Health according to the communication role (management) scheme, and the latter coordinates messaging and communication to media and the public in concert with other government agencies [1, 2].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 30 August 2020.
[2] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". Attachment No.11. "Information, cooperation and delegation scheme for communication professionals in emergencies"" (Informēšanas, sadarbības un deleģēšanas shēma komunikācijas speciālistiem ārkārtas situācijās)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 30 August 2020.

3.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Latvia's risk communication plan for health emergencies does not designate a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. The Ministry of Health has developed a crisis communication plan, as part of the "State Disaster Medicine Plan" (last amended 2020), an all-hazard plan that covers public health emergencies and describes the objectives of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. The Plan's Attachment No.11., entitled "Information, cooperation and delegation scheme for communication professionals in emergencies", is dedicated to emergency communication and explicitly covers public health emergencies. It stipulates that the State Operative Medical Committee instructs the communication department in the Ministry of Health according to the communication role (management) scheme, and the latter coordinates messaging and communication to media and the public in concert with other government agencies. However, the plan does not contain any information on a specific position within the government being delegated to serve as the primary spokesperson to the public [1]. No evidence of such a designated position was found on the Ministry of Health website [2].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". Attachment No.11. "Information, cooperation and delegation scheme for communication professionals in emergencies (Informēšanas, sadarbības un deleģēšanas shēma komunikācijas speciālistiem ārkārtas situācijās)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 17 September 2020.
[2] Ministry of Health of the Republic of Latvia. "Normative documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 17 September 2020.

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 2

There is evidence that in the past year Latvia's public health system has actively shared messages via online media platforms to inform the public about ongoing public health concerns and to dispel rumors and misinformation. The Center for Disease Prevention and Control (CDPC), which is the institution responsible for epidemiological safety under the supervision of the Ministry of Health, has a regularly maintained website providing epidemiological news. Both of the social media platforms are updated multiple times a day, and the CDPC website at least once a day, providing latest information on Covid-19 statistical data (tests performed, confirmed cases, active cases, deaths, hospitalizations, updates on tracking efforts to detect sources of infection and contact persons) as well as sharing changes of the counter-epidemic measures, and other epidemic related news [1, 2, 3]. The Ministry of Health (MoH) also has a Facebook page and Twitter account. These social media pages are also updated daily, as is the MoH website, sharing similar content to the CDPC [4, 5, 6]. The local media have also been republishing content from the websites of CDPC and MoH that dispel rumors, disinformation and misinformation related to Covid-19, for example that the virus only affects elderly people, that the virus was created in a laboratory, and that the virus can be killed by consuming alcohol [7]. Prior to the Covid-19 pandemic, both the CDPC and the MoH shared information about ongoing public health concerns such as influenza, rising suicide and self-harm rates, alcoholism, and vaccination, as

well as dispelling rumors and misinformation surrounding influenza, smoking and the dangers of vaccination [8, 9].

[1] Center for Disease Prevention and Control of Latvia. "News/Covid-19". [https://www.spkc.gov.lv/lv]. Accessed 23 September 2020.
[2] Center for Disease Prevention and Control of Latvia. "Facebook. @SPKCentrs". [https://www.facebook.com/SPKCentrs/]. Accessed 23 September 2020.
[3] Center for Disease Prevention and Control of Latvia. "Twitter. @SPKCentrs". [https://twitter.com/SPKCentrs]. Accessed 23 September 2020.
[4] Ministry of Health of the Republic of Latvia. "Press Releases/Covid-19". [https://www.vm.gov.lv/lv/]. Accessed 23 September 2020.
[5] Ministry of Health of the Republic of Latvia. "Facebook. @VeselibasMinistrija". [https://www.facebook.com/VeselibasMinistrija/]. Accessed 23 September 2020.
[6] Ministry of Health of the Republic of Latvia. "Twitter. @veselibasmin". [https://twitter.com/veselibasmin]. Accessed 23 September 2020.
[7] Apollo.lv. 3 March 2020. "Dispelling Coronavirus myths". [https://www.apollo.lv/6909319/vai-kiploki-mus-izglabs-reksis-mani-aplipinas-apgazam-mitus-par-koronavirusu]. Accessed 15 October 2020.
[8] Center for Disease Prevention and Control of Latvia. "News". [https://www.spkc.gov.lv/lv]. Accessed 23 September 2020.
[9] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/]. Accessed 23 September 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no evidence that senior leaders have shared misinformation or disinformation on infectious diseases in the past two years. No evidence have been found in major Latvian news outlets nor in international media [1, 2, 3, 4, 5, 6].

[1] Delfi. [https://www.delfi.lv/]. Accessed 23 September 2020.
[2] LETA. The National News Agency. [https://www.leta.lv/]. Accessed 23 September 2020.
[3] LSM.lv. [https://www.lsm.lv/]. Accessed 23 September 2020.
[4] Reuters. [http://reuters.com]. Accessed 23 September 2020.
[5] BBC. "World/Europe". [https://www.bbc.com/news/world/europe]. Accessed 23 September 2020.
[6] Euronews. [https://www.euronews.com/]. Accessed 23 September 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 86.14

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: 108.66

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: 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: 1.0

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, Latvia has issued a restriction on the export of medical goods due to an infectious disease outbreak without international/bilateral support. Order No.103 of 12 March 2020 "Regarding Declaration of the Emergency Situation", which declared a countrywide state of emergency, stipulates that depending on the epidemiological situation in the country, the Minister for Health has the right to prohibit wholesalers of medicinal products from exporting any medicinal products intended for the Latvian market to third countries or to countries in the European Economic Area (EEA) [1]. Following the declaration, the Minister of Health issued Order no. 68 on "Restrictions on Export of Medicines" (adopted 3 April 2020), unilaterally prohibiting export of medicines needed during the state of emergency to third countries and EEA states [2]. The list of medicines prohibited for export was prepared by the State Agency of Medicines, taking into consideration recommendations of the World Health Organization (WHO) for treatment of Covid-19 and after performing risk assessment of medicine accessibility in Latvia [2]. The list is publicly available on the State Agency of Medicines website and includes 19 items, identified by their international nonproprietary name, including Rivaroxabanum, Adalimumabum, Enfuvirtidum, Etravirinum, Pazopanibum [3, 4]. Order no.68 on restriction of medicine exports expired 5 June 2020 [2].

[1] Cabinet of Ministers of the Republic of Latvia. No.103 of 12 March 2020. "Regarding Declaration of the Emergency Situation (Par ārkārtējās situācijas izsludināšanu)". [https://likumi.lv/ta/id/313191-par-arkartejas-situacijas-izsludinasanu]. Accessed 23 September 2020.
[2] Minister of Health of the Republic of Latvia. No.68 of 3 April 2020. "Restrictions of Exporting Medicines (Par zāļu eksporta un izvešanas ierobežošanu)". [https://m.likumi.lv/doc.php?id=313668]. Accessed 23 September 2020.
[3] State Agency of Medicines of Latvia. 3 April 2020. "On restricting the export of medicines from 3 April this year (Par zāļu eksporta un izvešanas ierobežošanu no šī gada 3.aprīļa)". [https://www.zva.gov.lv/lv/jaunumi-un-publikacijas/jaunumi/par-zalu-eksporta-un-izvesanas-ierobezosanu-no-si-gada-3-aprila]. Accessed 23 September 2020.
[4] State Agency of Medicines of Latvia. 9 April 2020. "On restricting the export of medicines from 3 April this year; the list of medicinal products has been supplemented (Par zāļu eksporta un izvešanas ierobežošanu no šī gada 3.aprīļa; papildināts zāļu saraksts)". [https://www.zva.gov.lv/lv/covid-19-zinas]. Accessed 23 September 2020.

3.7.1b

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

Yes = 0 , No = 1

Current Year Score: 1

There is no public evidence that, in the past year, Latvia has issued a restriction on export/import of non-medical goods due to an infectious disease outbreak without an international/bilateral support. There is no such evidence on the websites of the State Revenue Service, responsible for the implementation of the state's Customs policy, the Ministry of Health, Ministry of Agriculture, Ministry of Foreign Affairs, or in the local or international media [1, 2, 3, 4].

[1] State Revenue Service of Latvia. "Restrictions and prohibitions on the movement of goods (Ierobežojumi un aizliegumi preču pārvietošanai)". [https://www.vid.gov.lv/lv/ierobezojumi-un-aizliegumi-precu-parvietosanai]. Accessed 23 September 2020.
[2] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 23 September 2020.
[3] Ministry of Agriculture of the Republic of Latvia. "Press Releases". [https://www.zm.gov.lv/aktualitates/]. Accessed 23 September 2020.

[4] Ministry of Foreign Affairs of the Republic of Latvia. "Press Releases". [https://www.mfa.gov.lv/aktualitates]. Accessed 23 September 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, Latvia has introduced a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak. In March 2020, the European Union (EU) introduced coordinated temporary restriction on non-essential travel from third countries into the EU+ area, to which Latvia has been adhering [1]. Since 1 July 2020, the restrictions have been gradually lifted, in accordance with the assessment of the third countries' epidemiological situation (done every two weeks) [1]. Additionally, on 10 June 2020, Latvia introduced a prohibition, which also applies to EU members, on direct international passenger transport (international passenger traffic through airports, ports, by bus and railway transport) to and from countries categorized by the Center of Disease Prevention and Control (CDPC) as "Significant (very high likelihood) public health threat" (where 14-day cumulative incidence rate of Covid-19 cases per 100,000 inhabitants exceeds twice the average value for the EU/EEA and the UK) [2, 3]. Travelers who enter Latvia after having visited "significant threat" countries are required to self-isolate for 10 days upon their arrival in Latvia [2]. The CDPC updates the list of countries subject to special safety measures on a weekly basis and the prohibition of passenger transportation come into force three days after publication [3].

[1] European Council. 30 June 2020. "Council Recommendation (EU) 2020/912 of 30 June 2020 on the temporary restriction on non-essential travel into the EU and the possible lifting of such restriction". [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32020H0912#ntr2-LI2020208EN.01000101-E0002]. Accessed 19 October 2020.
[2] State Border Guard of Latvia. "Covid-19/Border Crossing (Robežšķērsotāju ievērībai)". [http://www.rs.gov.lv/index.php?top=0&id=1985]. Accessed 23 September 2020.
[3] Center for Disease Prevention and Control of Latvia. "Countries' Covid-19 infection rates (Valstu saslimstības rādītāji ar Covid-19)". [https://www.spkc.gov.lv/lv/valstu-saslimstibas-raditaji-ar-covid-19-0]. Accessed 23 September 2020.

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 319.05

2017

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 475.17

2017

WHO; national sources

4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has a public healthcare workforce strategy in place which has been updated in the past five years. Regulation No.394, titled 'On the conceptual report "On the reform of the healthcare system"' (adopted 2017) includes a public health workforce strategy. The strategy addresses human resources problems associated with the insufficient number of nurses, insufficient salary levels, the aging of staff and ineffective generation changes. It provides an action plan to address the shortcomings in the workforce by means such as: increasing salaries through increased budgetary allocations for healthcare, improving capacity planning and management in medical institutions, and increasing the number of state-funded places in healthcare higher education institutions [1].

[1] Cabinet of Ministers of the Republic of Latvia. No.394 of 7 August 2017. "On the conceptual report "On the reform of the health care system" (Par konceptuālo ziņojumu "Par veselības aprūpes sistēmas reformu")".

[https://likumi.lv/doc.php?id=292718]. Accessed 30 August 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 549

2018

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has the capacity to isolate patients with highly communicable diseases in patient isolation facilities located within the country. According to the National Health Service hospitalization plan for Covid-19 patients, isolation of patients with highly communicable diseases is possible in seven hospitals with infectious disease divisions (five municipal and two state clinical university hospitals). The ward units within these hospitals are specifically designed as to ensure complete isolation of both the patients and the staff, they are insulated and provided with a separate ventilation system from the rest of the hospital. The units are also adapted for performing high-level disinfection and for ensuring proper handling of infectious material. [1, 2, 3]

[1] National Health Service of Latvia. 2020. "Hospitalization Plan". [http://www.vmnvd.gov.lv/lv/ligumpartneriem/stacionarie-pakalpojumi/hospitalizacijas-plans]. Accessed 15 October 2020.
[2] Latvian Hospital Association. 19 May 2020. "In April, more than 5,000 Covid-19 tests were performed in municipal hospitals". [https://lvportals.lv/dienaskartiba/316327-pasvaldibu-slimnicas-aprili-veikti-vairak-neka-5000-covid-19-testi-2020]. Accessed 15 October 2020.
[3] La.lv. 12 May 2020. "Covid-19 patients can be treated only in 7 out of 24 Latvia's hospitals". [https://www.la.lv/covid-19-slimniekus-latvija-arstet-iespejams-tikai-7-no-24-slimnicam]. Accessed 15 October 2020.

4.1.2c

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

Yes = 1, No = 0

Current Year Score: 1

In the past two years, Latvia has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak, but there is no evidence that Latvia has developed, updated or tested a plan to expand isolation capacity. According to the National Health Service hospitalization plan for Covid-19 patients, isolation of patients with highly communicable diseases is possible in seven hospitals with infectious disease divisions (five municipal and two state clinical university hospitals). The ward units within these hospitals are specifically designed as to ensure complete isolation of both the patients and the staff, they are insulated and provided with a separate ventilation system from the rest of the hospital. The units are also adapted for performing high-level disinfection and for ensuring proper handling of infectious material. [1, 2, 3] In January 2021, the Latvian government provided EUR1.99 million (US$2.36 million) to increase the hospital bed capacity for Covid-19 patient isolation. [4] The funding is dedicated to the repurposing of 462 hospital beds and to the creation of 124 new bed spaces. [4] No public evidence of a plan that foresees expanding isolation capacity could be located on the websites of the Ministry of Health, Center for Disease Prevention and Control of Latvia, or the State Emergency Medical Service. [5, 6, 7] No evidence of such plan could be found in the Joint External Evaluation (JEE), conducted in May 2017, or the State Disaster Medicine Plan (last amended 2020), an all-hazard plan (including pandemics) that describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. [8, 9]

[1] National Health Service of Latvia. 2020. "Hospitalization Plan". [http://www.vmnvd.gov.lv/lv/ligumpartneriem/stacionarie-pakalpojumi/hospitalizacijas-plans]. Accessed 15 October 2020.
[2] Latvian Hospital Association. 19 May 2020. "In April, more than 5,000 Covid-19 tests were performed in municipal hospitals". [https://lvportals.lv/dienaskartiba/316327-pasvaldibu-slimnicas-aprili-veikti-vairak-neka-5000-covid-19-testi-2020]. Accessed 15 October 2020.
[3] La.lv. 12 May 2020. "Covid-19 patients can be treated only in 7 out of 24 Latvia's hospitals". [https://www.la.lv/covid-19-slimniekus-latvija-arstet-iespejams-tikai-7-no-24-slimnicam]. Accessed 15 October 2020.
[4] Ministry of Health of the Republic of Latvia. 5 January 2021. "More than €11 million will be invested in the expansion of extra beds and the purchase of medical equipment for the treatment of Covid-19 patients (Vairāk nekā 11 miljonus eiro ieguldīs, lai izvērstu papildu gultas un iegādātos medicīniskās iekārtas Covid-19 pacientu ārstēšanai)". [https://www.vm.gov.lv/lv/jaunums/vairak-neka-11-miljonus-eiro-ieguldis-lai-izverstu-papildu-gultas-un-iegadatos-mediciniskas-iekartas-covid-19-pacientu-arstesanai]. Accessed 7 April 2021.
[5] Ministry of Health of the Republic of Latvia. [https://www.vm.gov.lv/]. Accessed 7 April 2021.
[6] The Center for Disease Prevention and Control of Latvia. [[https://www.spkc.gov.lv/]. Accessed 7 April 2021.
[7] State Emergency Medical Service of Latvia. [https://www.nmpd.gov.lv/lv]. Accessed 7 April 2021.
[8] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 7 April 2021.
[9] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/valsts_katastrofu_medicinas_plans_/]. Accessed 7 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 a national procurement protocol in place which can be used by the Ministries of Health and Agriculture for the acquisition of medical and laboratory supplies. Regulation No.108 on public electronic procurement rules (adopted 2017, last amended 2020) sets requirements and standards for the systems used to submit tenders and applications, of which the main system is the Electronic Procurement System (EPS) [1]. This System is used by all state and municipal institutions and contains a list of procurements with the Ministries of Health and Agriculture as the contracting authorities [1, 2]. Additionally, the E-Order function, which acts as an online store through which institutions can order products and services offered by suppliers contracted by State Regional Development Agency, includes a medical supplies catalogue allowing interested parties to order the required items (equipment and PPE) [3]. Whilst the E-Order catalogue does not have a section for directly ordering laboratory supplies, the EPS is regularly used to issue and manage tenders for procurement of laboratory needs [4].

[1] Cabinet of Ministers of the Republic of Latvia. No.108 of 1 March 2017. "Public electronic procurement rules (Publisko elektronisko iepirkumu noteikumi)". [https://likumi.lv/ta/id/289087]. Accessed 23 September 2020.
[2] Electronic Procurement System. [https://www.vraa.gov.lv/lv/elektronisko-iepirkumu-sistema]. Accessed 23 September 2020.
[3] Electronic Procurement System. "E-orders". [https://www.eis.gov.lv/EIS/Categories/CategoryList.aspx?]. Accessed 23 September 2020.
[4] Electronic Procurement System. "E-tenders". [https://www.eis.gov.lv/EKEIS/Supplier]. Accessed 23 September 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: 2

Latvia has a stockpile of medical supplies for national use during a public health emergency, and there is evidence of what the stockpiles contain. The World Health Organization's Joint External Evaluation (JEE) of Latvia, conducted in May 2017, reports that Latvia stockpiles medical devices and medicinal products, including antibiotics but no vaccines. [1] The JEE further states that, whilst antidotes are included in the Formulary, they are not yet stockpiled, as financial resources do not allow for it at this point [1]. Requirements for the stockpiling and supply system are set by regulation No.461 "On provision of emergency medical care and anti-epidemic measures, preparation of the system of medical products and work in case of national danger" (adopted 2005, last amended 2018) [2]. Additionally, the Law on the State Material Reserves (adopted

2019, last amended 2019) stipulates that the sectoral ministry is responsible for planning material reserves needed in respective sectors, as well as purchase, replenishment and storage of reserves [3]. The Ministry of Health (and its subordinate institutions) is the responsible ministry during an epidemic as per the State Civil Protection Plan (adopted 2020) [4]. However, on 4 March 2020, the Ministry of Health (MoH) reported shortages of personal protective equipment (PPE) and other equipment, and of medicines (including 40,000 doxycycline tablets, 6K tablets of amoxicillin/clavulanic acid, 10,000 ampules of gentamicin (solution for injections) [5]. It was noted that the stockpiling did not meet the state material reserve requirements, due to long-term insufficient funding for the purchase and renewal of state material reserves [5]. Consequently, the MoH requested and obtained additional funding of EUR13,700 (US$15,900) to cover the shortages of PPE and other equipment, and of EUR97,600 (US$113.600) to cover the shortages of medicines [5]. To facilitate the procurement of medical supplies, on 2 April 2020, Latvia established the State Central Reserve Procurement Group that, under the supervision of the Ministry of Defense and in cooperation with the State Fire and Rescue Service, the National Health Service and other institutions, is responsible for centralized procurement of medical supplies for all the state institutions as well as for creating national reserves of such supplies for at least three months [6].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 24 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.461 of 2 July 2005. "Regulations on Provision of Emergency Medical Care and Anti-epidemic Measures, Preparation of the System of Medical Products and Work in case of National Danger (Noteikumi par neatliekamās medicīniskās palīdzības nodrošināšanu un pretepidēmijas pasākumiem, medikamentu nodrošinājuma sistēmas sagatavošanu un darbu valsts apdraudējuma gadījumā)". [https://likumi.lv/doc.php?id=111625]. Accessed 24 September 2020.
[3] Parliament of the Republic of Latvia. 1 January 2019. "Law on the State Material Reserves (Valsts materiālo rezervju likums)". [https://likumi.lv/ta/en/en/id/302995-law-on-the-state-material-reserves]. Accessed 24 September 2020.
[4] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 24 September 2020.
[5] LETA. 4 March 2020. "The state material reserves lack gloves, surgical masks and other protective equipment, as well as various medicines (Valsts materiālajās rezervēs trūkst gan cimdi, operācijas maskas un citi aizsardzības līdzekļi, gan dažādi medikamenti)". [https://www.apollo.lv/6914375/valsts-materialajas-rezerves-trukst-gan-cimdi-operacijas-maskas-un-citi-aizsardzibas-lidzekli-gan-dazadi-medikamenti]. Accessed 24 September 2020.
[6] Cabinet of Ministers of the Republic of Latvia. 2 April 2020. "State Center for Defense Military Objects and Procurement will conduct centralized procurement of medical protective equipment (Valsts aizsardzības militāro objektu un iepirkumu centrs veiks medicīnisko aizsarglīdzekļu centralizētos iepirkumus)". [https://www.mk.gov.lv/lv/aktualitates/valsts-aizsardzibas-militaro-objektu-un-iepirkumu-centrs-veiks-medicinisko]. Accessed 24 September 2020.

4.2.2b

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

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

Current Year Score: 0

There is no publicly available evidence that Latvia has a stockpile of laboratory supplies for national use during a public health emergency. The Joint External Evaluation, conducted in May 2017, does not report existence of a stockpile of laboratory supplies [1]. There is no stipulation on stockpiling of laboratory supplies in regulation No.461 "On provision of emergency medical care and anti-epidemic measures, preparation of the system of medical products and work in case of national danger" (adopted 2005, last amended 2018), which regulates the stockpiling and supply system [2]. No evidence of such

stockpiles can be found on the websites of the Ministry of Health or the Ministry of Defense [3, 4].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 24 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.461 of 2 July 2005. "Regulations on Provision of Emergency Medical Care and Anti-epidemic Measures, Preparation of the System of Medical Products and Work in case of National Danger (Noteikumi par neatliekamās medicīniskās palīdzības nodrošināšanu un pretepidēmijas pasākumiem, medikamentu nodrošinājuma sistēmas sagatavošanu un darbu valsts apdraudējuma gadījumā)". [https://likumi.lv/doc.php?id=111625]. Accessed 24 September 2020.
[3] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 24 September 2020.
[4] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/index.php/lv/dokumenti]. Accessed 24 September 2020.

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 1

Latvia is required to conduct an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. The Law on the State Material Reserves (adopted 2019, last amended 2019) stipulates that the sectoral ministry is responsible for planning material reserves needed in respective sectors, purchasing, replenishing and storing of reserves, and conducting annual evaluations on various aspects of the reserve, including physical security and use of the reserve in the past year. By March 1 of each year, a report must be submitted to the Ministry of the Interior outlining what is contained in the reserve as well as funds needed for the creation and management of items in the reserve to meet the outlined security objectives [1]. The Ministry of Health (and its subordinate institutions) is the responsible ministry during an epidemic as per the State Civil Protection Plan (adopted 2020). [2] However, no public evidence of an annual review being conducted could be located on the websites of the Ministry of Health, National Health Service or State Emergency Medical Service. [3, 4, 5]

[1] Parliament of the Republic of Latvia. 1 January 2019. "Law on the State Material Reserves (Valsts materiālo rezervju likums)". [https://likumi.lv/ta/en/en/id/302995-law-on-the-state-material-reserves]. Accessed 7 April 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 7 April 2020.
[3] Ministry of Health of the Republic of Latvia. [https://www.vm.gov.lv/]. Accessed 7 April 2020.
[4] National Health Service of Latvia. [http://www.vmnvd.gov.lv]. Accessed 7 April 2020.
[5] State Emergency Medical Service. [https://www.nmpd.gov.lv/lv]. Accessed 7 April 2020.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 1

There is no public evidence that Latvia has a plan or agreement to leverage domestic manufacturing capacity to produce medical supplies or medical countermeasures (MCM) during a public health emergency, but Latvia has relevant procurement mechanisms in place. There is no evidence of a plan or agreement to leverage domestic manufacturing capacity on the websites of the Ministry of Health or the Ministry of Defense, nor is there stipulation of such a plan in the State Civil Protection Plan (adopted 2020) or State Disaster Medicine Plan (amended 2020) [1, 2, 3, 4]. However, in the context of the Covid-19 pandemic, Latvia introduced incentives to increase domestic production of personal protective equipment (PPE). On 15 April 2020, the Ministry of Economy (MoE) introduced a support scheme and facilitated the certification procedure for PPE production. The support for companies is provided by the Latvian Investment and Development Agency (which is subordinate to the MoE) in the form of a grant covering up to 80% of the total cost of PPE certification [5]. On 2 April 2020, Latvia introduced a new centralized mechanism for procuring PPE for national use, according to which the State Center for Defense Military Objects and Procurement will conduct centralized procurement of medical supplies for all the state institutions [6]. The centralized procurement mechanism will continue centralized acquisition of PPE also after the Covid-19 emergency in order to improve Latvia's response to public health emergencies [7]. Since 2014, Latvia has been part of the European Union's Joint Procurement Agreement (JPA) on the procurement of medical countermeasures [8]. Countries that have joined the JPA may engage in a joint procurement procedure with a view to purchase such medical countermeasures as vaccines, antivirals, laboratory tests, diagnostic tools/kits to address serious cross-border threats to health [9]. Finally, Latvia also has an agreement with Estonia and Lithuania on the joint procurement and lending of medicinal products and medical devices (introduced in 2012). The joint procurement procedure stipulates that the states jointly procure devices and products from manufacturers and distributors established in the procurement procedure, ensuring the rationalization of procurement and reducing the time and administrative resources required [10].

[1] Ministry of Health of the Republic of Latvia. "Normative Documents". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 7 April 2021.
[2] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 7 April 2021.
[3] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 7 April 2021.
[4] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 7 April 2021.
[5] Ministry of Economy of the Republic of Latvia. 15 April 2020. "Support tools for the production of personal protective equipment in Latvia have been developed (Izstrādāti atbalsta instrumenti individuālo aizsardzības līdzekļu ražošanai Latvijā)". [https://lvportals.lv/dienaskartiba/315186-izstradati-atbalsta-instrumenti-individualo-aizsardzibas-lidzeklu-razosanai-latvija-2020]. Accessed 7 April 2021.
[6] Cabinet of Ministers of the Republic of Latvia. 2 April 2020. "State Center for Defense Military Objects and Procurement will conduct centralized procurement of medical protective equipment (Valsts aizsardzības militāro objektu un iepirkumu centrs veiks medicīnisko aizsarglīdzekļu centralizētos iepirkumus)". [https://www.mk.gov.lv/lv/aktualitates/valsts-aizsardzibas-militaro-objektu-un-iepirkumu-centrs-veiks-medicinisko]. Accessed 7 April 2021.
[7] Ministry of Defense of the Republic of Latvia. 28 September 2020. "Covid-19 procurement". [https://www.mod.gov.lv/lv/covid-19-iepirkumi]. Accessed 7 April 2021.
[8] European Commission. 10 April 2014. "Joint Procurement Agreement - List of EU countries". [https://ec.europa.eu/health/preparedness_response/joint_procurement/jpa_signature_lv]. Accessed 7 April 2021.
[9] European Commission. 10 April 2014. "Medical countermeasures that could be procured in common under the Joint

Procurement Agreement".
[https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/jpa_note_scope_en.pdf]. Accessed 7 April 2021.
[10] International Document. 2 May 2012. "Partnership Agreement between the Ministry of Health of the Republic of Latvia, the Ministry of Social Affairs of the Republic of Estonia and the Ministry of Health of the Republic of Lithuania on Joint Procurements of Medicinal Products and Medical Devices and Lending of Medicinal Products and Medical Devices Procurable Centrally". [https://likumi.lv/doc.php?id=248008]. Accessed 7 April 2021.

4.2.3b

Does the country meet one of the following criteria?
- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

There is no public evidence that Latvia has a plan or agreement to leverage domestic manufacturing capacity to produce laboratory supplies, or a plan or mechanism to procure laboratory supplies for national use during a public health emergency. No evidence of either of the plans, agreements or mechanisms was found on the websites of the Ministry of Health, National Health Service, or Ministry of Defense, nor there is any stipulation of such plan in the State Civil Protection Plan (adopted 2020) or in the State Disaster Medicine Plan (amended 2020) [1, 2, 3, 4, 5].

[1] Ministry of Health of the Republic of Latvia. "Normative Documents".
[http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 24 September 2020.
[2] National Health Service of Latvia. "NSA agreements and transactions to limit Covid-19 (NVD līgumi un darījumi Covid-19 ierobežošanai)". [http://www.vmnvd.gov.lv/lv/covid-19/nvd-ligumi-un-darijumi-covid-19-ierobezosanai]. Accessed 24 September 2020.
[3] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 24 September 2020.
[4] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 2 September 2020.
[5] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 24 September 2020.

4.3 MEDICAL COUNTERMEASURES AND PERSONNEL DEPLOYMENT

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

4.3.1a

Does the country have a plan, program, or guidelines in place for dispensing medical countermeasures (MCM) for national use during a public health emergency (i.e., antibiotics, vaccines, therapeutics and diagnostics)?
Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that Latvia has a plan, program, or guidelines in place for dispensing medical countermeasures for national use during a public health emergency. According to the Joint External Evaluation, conducted in May 2017, Latvia has a plan for distributing medical countermeasures for national use during a public health emergency to health institutions [1]. The plan, however, does not provide further specifications on how medical countermeasures will reach individuals in need from these points. The scheme of relevant parties and their responsibilities in distributing national reserves to the health institutions, including medical countermeasures, is included in the State Disaster Medicine Plan (last amended 2020), attachment No.10: "Sending of State Material Reserves to the place of event / medical treatment institutions in an emergency situation" [2]. This scheme does not, however, include more detailed information on how medical substances and medicine would be dispensed to citizens in a national public health emergency [2]. Such evidence could not be found on the websites of the Ministry of Health or Ministry of Defense [3, 4].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 21 September 2020.
[2] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 24 September 2020.
[3] Ministry of Health of the Republic of Latvia. "Normative Documents". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 24 September 2020.
[4] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 24 September 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 Latvia has a public plan to receive healthcare personnel from other countries in response to a public health emergency. According to the Joint External Evaluation, conducted in May 2017, Latvia has no national plan in place that identifies procedures and decision-making related to sending and receiving health personnel during a public health emergency [1]. No such plan is published on the websites of the Ministry of Health or Ministry of Defense [2, 3]. However, despite the lack of a plan for receiving health personnel, international arrangements in place do make provision for this. Latvia has cross-border agreements on mutual assistance in disaster prevention and response with Estonia and Lithuania (adopted 2018) [4]. Whilst the agreement's Article 6 stipulates that the parties shall jointly develop procedures and plans to facilitate the rendering and transit of assistance (both of equipment and personnel), the agreement does not contain any concrete procedures or plans of this kind [4]. Additionally, Latvia is a member of European Union (EU) Civil Protection Mechanism, which provides aid in the immediate aftermath of natural and manmade disasters to any country in the world calling for help, in the form of in-kind assistance, deployment of specially-equipped teams or assessment and coordination by experts sent to the field. The personnel consists of a voluntary pool of emergency response personnel, pre-committed by the countries participating in the Mechanism (28 EU Member States plus Iceland, Montenegro, Norway, Serbia, the former Yugoslav Republic of Macedonia and Turkey) [7]. Whilst Latvia does not participate in the European Medical Corps, which

deploys teams and equipment to provide medical assistance and public health expertise in response to emergencies inside and outside the EU, Latvia can still request assistance [8].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 21 September 2020.
[2] Ministry of Health of the Republic of Latvia. "Normative Documents". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 21 September 2020.
[3] Ministry of Defense of the Republic of Latvia. "Normative Documents". [https://www.mod.gov.lv/lv/dokumenti]. Accessed 21 September 2020.
[4] International Document. 24 December 2018. "Agreement between the Government of the Republic of Latvia, the Government of the Republic of Estonia and the Government of the Republic of Lithuania on Mutual Assistance and Cooperation in the Field of Disaster Prevention, Preparedness and Response". [https://likumi.lv/ta/lv/starptautiskie-ligumi/id/1750-latvijas-republikas-valdibas-igaunijas-republikas-valdibas-un-lietuvas-republikas-valdibas-noligums-par-sadarbibu-katastrofu]. Accessed 21 September 2020.
[5] European Commission. "EU Civil Protection Mechanism". [http://ec.europa.eu/echo/what/civil-protection/mechanism_en]. Accessed 21 September 2020.
[6] European Commission. "European Medical Corps". [https://ec.europa.eu/echo/what-we-do/civil-protection/european-medical-corps_en]. Accessed 21 September 2020.

4.4 HEALTHCARE ACCESS

4.4.1 Access to healthcare

4.4.1a

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

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

Current Year Score: 3

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.9

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: 706.38

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that prioritized healthcare is provided to healthcare workers who become sick as a result of responding to a public health emergency. No information on prioritization was found in the State Disaster Medicine Plan (last amended 2020), which is an all-hazard plan covering public health emergencies [1]. Furthermore, there is no evidence of such a procedure in the State Civil Protection Plan (adopted 2020), which is an overall emergency preparedness plan that also includes planning for public health emergencies [2]. Regulation No. 447 on Work Related to a Possible Risk to the Health of Other Persons and Procedures for the Performance of Mandatory Health Examinations (adopted 2018, last amended 2020), which lists employees of medical treatment institutions as a risk group, does not mention prioritized healthcare, simply stating that any such employee manifesting symptoms of a potential infectious disease (such as vomiting, increased body temperature with cough, rhinitis, or throat inflammation) is required to immediately inform the employer of their inability work, and to visit a doctor [3]. The Medical Treatment Law (adopted 2017, last amended 2020) does not lay out specific considerations for the treatment of healthcare workers either [4]. Finally, no statements about prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency were found on the Ministry of Health website [5].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 21 September 2020.

[2] Cabinet of Ministers of the Republic of Latvia. No.476 of 26 August 2020. "State Civil Protection Plan (Valsts civilās aizsardzības plāns)". [https://likumi.lv/ta/id/317006-par-valsts-civilas-aizsardzibas-planu]. Accessed 21 September 2020.
[3] Cabinet of Ministers of the Republic of Latvia. No.447 of 31 July 2018. "Regulations Regarding Work Related to a Possible Risk to the Health of Other Persons and Procedures for the Performance of Mandatory Health Examinations (Noteikumi par darbiem, kas saistīti ar iespējamu risku citu cilvēku veselībai, un obligāto veselības pārbaužu veikšanas kārtība)". [https://likumi.lv/ta/id/300636-noteikumi-par-darbiem-kas-saistiti-ar-iespejamu-risku-citu-cilveku-veselibai-un-obligato-veselibas-parbauzu-veiksanas-kartiba]. Accessed 21 September 2020.
[4] Parliament of the Republic of Latvia. 1 October 1997. "Medical Treatment Law (Ārstniecības likums)". [https://likumi.lv/ta/id/44108-arstniecibas-likums]. Accessed 21 September 2020.
[5] Ministry of Health of the Republic of Latvia. "Normative Documents - Regulations". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 21 September 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has a system in place for public health officials and healthcare workers to communicate during a public health emergency. According to the Joint External Evaluation report of Latvia, conducted in May 2017, there is a system in place for communication between health officials and healthcare workers during a health emergency and vice versa. [1] The State Disaster Medicine Plan (last amended in 2020) is an all-hazard plan covering public health emergencies, which describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity [2]. The Plan clearly sets out a communication system, by which all actors, including the Ministry of Health, State Emergency Medical Service, Center for Disease Prevention and Control, hospitals as well as other medical institutions and medical practitioners, must communicate with each other. The plan offers communication protocols based on the type of health emergency - dangerous and other infectious diseases are governed by attachment No.2 of the Plan), radiation accidents by attachment No.5), and diseases of unknown origin by attachment No.6) [2].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 21 September 2020.
[2] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 21 September 2020.

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Latvia's system for public health officials and healthcare workers to communicate during an emergency encompasses healthcare institutions in both the public and private sectors.

The communication plan, which sets out inter-agency coordination mechanisms, roles and responsibilities for communication staff according to the field of the emergency, are part of the State Disaster Medicine Plan (last amended 2020). This all-hazard plan covers public health emergencies and describes the objective of the Disaster Medicine System, roles and responsibilities during emergencies, coordination mechanisms between institutions, and information about healthcare surge capacity. The plan clearly sets out a communication system, through which all actors, including the Ministry of Health, State Emergency Medical Service, Center for Disease Prevention and Control, hospitals as well as other medical institutions and medical practitioners, must communicate. The plan simply refers to hospitals and other health institutions, without specifically referring to them as being public or private [1]. However, regulation No.461 "On Provision of emergency medical care and anti-epidemic measures, preparation of the system of medical products and work in case of national danger" (adopted 2005, last amended 2018) explicitly states that state, municipal and private medical institutions are all to act in accordance with the State Disaster Medicine Plan [2].

[1] State Emergency Medical Service of Latvia. 11 December 2018. "State Disaster Medicine Plan (Valsts katastrofu medicīnas plāns)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 21 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.461 of 28 June 2005. "Regulations on provision of emergency medical care and anti-epidemic measures, preparation of the system of medical products and work in case of national danger (Noteikumi par neatliekamās medicīniskās palīdzības nodrošināšanu un pretepidēmijas pasākumiem, medikamentu nodrošinājuma sistēmas sagatavošanu un darbu valsts apdraudējuma gadījumā)". [https://likumi.lv/doc.php?id=111625]. Accessed 21 September 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that the number of healthcare-associated infections is being monitored by the national public health system. The Center for Disease Prevention and Control (CDPC) gathers statistical data on the number of infections, including those that occur in healthcare facilities. CDPC performs epidemiological investigations of infection cases, including inspection of patient survey results to identify possible risk factors and determine where the infection was acquired. Statistics on nosocomial infections are publicly available in the annual "Overview of Infectious and Parasitic Diseases", column IHI (intrahospitālas infekcijas) [1].

[1] Center for Disease Prevention and Control of Latvia. "Statistics and Research. Overviews of Infectious and Parasitic Diseases". [https://www.spkc.gov.lv/lv/infekcijas-slimibas-un-imunizacija]. Accessed 28 August 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 for ethical review before beginning a clinical trial. Clinical trials of medicinal products involving humans as subjects must not occur without permission from the Clinical Medicinal Product Investigation Ethics Committee, supervised by the Ministry of Health. The requirement for a review by the Ethics Committee is stated in the Pharmaceutical Law (adopted 1997, last amended 2020) [1] and regulation No.289 "On Procedures for Conducting Clinical Trials and Non-interventional Trials of Medicinal Products, Labeling of Investigational Medicinal Products and Procedures for Assessment of Conformity of Clinical Trial of Medicinal Products with the Requirements of Good Clinical Practice" (adopted 2010, last amended 2010) [2, 3].

[1] Parliament of the Republic of Latvia. 8 May 1997. "Pharmaceutical Law (Farmācijas likums)". [https://likumi.lv/ta/id/43127-farmacijas-likums]. Accessed 28 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.289 of 1 April 2010. "Regulations Regarding the Procedures for Conduct of Clinical Trials and Non-interventional Trials of Medicinal Products, Labelling of Investigational Medicinal Products and the Procedures for Assessment of Conformity of Clinical Trial of Medicinal Products with the Requirements of Good Clinical Practice (Noteikumi par zāļu klīniskās izpētes un lietošanas novērojumu veikšanas kārtību, pētāmo zāļu marķēšanu un kārtību, kādā tiek vērtēta zāļu klīniskās izpētes atbilstība labas klīniskās prakses prasībām)". [https://likumi.lv/doc.php?id=207398]. Accessed 28 August 2020.
[3] European Network of Research Ethics Committees. "National Information: Latvia". [http://www.eurecnet.org/information/latvia.html]. Accessed 28 August 2020.

4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics in Latvia. Whilst there is no website dedicated to the Clinical Medicinal Product Investigation Ethics Committee, the Ministry of Health as the Committee's supervisor does not provide any evidence that the expediting of clinical trial approval to treat ongoing pandemics can be requested [1]. Furthermore, there is no information on such a process in the legislation regulating clinical trials, regulation No.289 "On Procedures for Conduct of Clinical Trials and Non-

interventional Trials of Medicinal Products, Labelling of Investigational Medicinal Products and the Procedures for Assessment of Conformity of Clinical Trial of Medicinal Products with the Requirements of Good Clinical Practice" (adopted 2010, last amended 2010) [2].

[1] Ministry of Health of the Republic of Latvia. "Clinical Medicinal Product Investigation Ethics Committee". [http://www.vm.gov.lv/lv/nozare/centrala_medicinas_etikas_komiteja/kliniskas_izpetes_etikas_komitejas/]. Accessed 28 August 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.289 of 1 April 2010. "Regulations Regarding the Procedures for Conduct of Clinical Trials and Non-interventional Trials of Medicinal Products, Labelling of Investigational Medicinal Products and the Procedures for Assessment of Conformity of Clinical Trial of Medicinal Products with the Requirements of Good Clinical Practice (Noteikumi par zāļu klīniskās izpētes un lietošanas novērojumu veikšanas kārtību, pētāmo zāļu marķēšanu un kārtību, kādā tiek vērtēta zāļu klīniskās izpētes atbilstība labas klīniskās prakses prasībām)". [https://likumi.lv/doc.php?id=207398]. Accessed 28 August 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

Is there a government agency responsible for approving new medical countermeasures (MCM) for humans?
Yes = 1 , No = 0

Current Year Score: 1

In Latvia, there is a government agency responsible for approving new medical countermeasures for humans. The State Agency for Medicines is responsible for the evaluation, registration, re-registration and post-registration of medicinal products for humans [1], according to the Pharmaceutical Law (adopted 1997, last amended 2020). The Law does not explicitly mention "medical countermeasures" but it covers them, defining medicinal products as substances with "properties that are needed in order to provide medical treatment for human diseases, or to perform prophylaxis of such diseases", as well as those used "to restore, correct or change physiological functions causing pharmacological, immunological or metabolic effects, or to make a medical diagnosis" [1].

[1] State Agency of Medicines of Latvia. "About the State Agency of Medicines". [https://www.zva.gov.lv/lv/par-mums/par-agenturu]. Accessed 28 August 2020.
[2] Parliament of the Republic of Latvia. 8 May 1997. "Pharmaceutical Law (Farmācijas likums)". [https://likumi.lv/ta/id/43127-farmacijas-likums]. Accessed 28 August 2020.

4.7.2b

Is there an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies?
Yes = 1 , No = 0

Current Year Score: 1

In Latvia, there is an expedited process for approving medical countermeasures for human use during public health emergencies. The main regulation on procedures for the registration of medicinal products, regulation No.376 "On Procedures for the Registration of Medicinal Products" (adopted 2006, last amended 2020), stipulates that an abridged application for the registration of medicinal products is available, but does not specifically refer to emergency situations [1]. The Regulation is issued pursuant to the Pharmaceutical Law (adopted 1997, last amended 2020) in which there is a clear

indication that in cases of emergencies, natural disasters or epidemics, and pursuant to a decision of the Minister for Health, the State Agency of Medicines can issue distribution permits for medicinal products registered and used in foreign states, but not in Latvia. The Law does not specifically mention medical countermeasures, but it covers them, defining medicinal products as substances with "properties that are needed in order to provide medical treatment for human diseases, or to perform prophylaxis of such diseases", as well as those used "to restore, correct or change physiological functions causing pharmacological, immunological or metabolic effects, or to make a medical diagnosis" [2].

[1] Cabinet of Ministers of the Republic of Latvia. Regulation No.376 of 23 June 2006. "Procedures for the Registration of Medicinal Products (Zāļu reģistrēšanas kārtība)". [https://likumi.lv/doc.php?id=138149]. Accessed 28 August 2020.
[2] Parliament of the Republic of Latvia. 8 May 1997. "Pharmaceutical Law (Farmācijas likums)". [https://likumi.lv/ta/id/43127-farmacijas-likums]. Accessed 28 August 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

Latvia has neither an overall disaster risk reduction strategy nor a standalone national disaster risk reduction strategy for pandemics. No evidence of a disaster risk reduction strategy for pandemics was found on the policy documents section of the Ministry of Health website [1]. The website of the Center for Disease Prevention and Control, the institution responsible for

epidemiological safety, does not include any information on a plan dedicated to disaster risk reduction for pandemics [2]. There is also no evidence of such a plan on the website of the State Emergency Medical Service, which is the health sector lead at the operational level during health emergencies [3].

[1] Ministry of Health of the Republic of Latvia. "Normative Documents - Regulations". [http://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 28 August 2020.
[2] Center for Disease Prevention and Control of Latvia. "Regulations". [https://www.spkc.gov.lv/lv/par-SPKC/normativie-akti]. Accessed 28 August 2020.
[3] State Emergency Medical Service of Latvia. "Disaster Medicine System Planning and Coordination". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 28 August 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

Latvia has cross-border agreements with neighboring countries with regard to public health emergencies. These are listed in the country's Joint External Evaluation, conducted in May 2017 [1]. The agreements which include health emergencies are those concluded with Estonia and Lithuania on mutual assistance and cooperation in the field of disaster prevention, preparedness and response (adopted 2018) [2], with Belarus on collaboration on the prevention and mitigation of disasters and other emergencies (adopted 2004) [3]; and with the Russian Federation on collaboration in the field of emergency prevention and mitigation (adopted 2011) [4]. No evidence of any gaps in implementation was found on the website of the State Fire and Rescue Service, which is the responsible institution for managing, coordinating and controlling the operation of the system of civil protection and part of the disaster management system, and lists events in which the partners of the international agreements have collaborated [5]. Furthermore, Latvia as an EU member is part of the EU Civil Protection Mechanism, which aims to improve prevention, preparedness and response to disasters, and as such has actively participated in EU's joint response to the Covid-19 pandemic by contributing to the delivery of emergency medical supplies to China through this Mechanism [6, 7]. Latvia can also receive assistance from the European Center for Disease Prevention and Control (ECDC), which supports the response to infectious disease threats to EU; the country has routinely shared epidemiological data with the ECDC [8, 9].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 26 August 2020.
[2] International Document. 24 December 2018. "Agreement between the Government of the Republic of Latvia, the Government of the Republic of Estonia and the Government of the Republic of Lithuania on Mutual Assistance and Cooperation in the Field of Disaster Prevention, Preparedness and Response". [https://likumi.lv/ta/lv/starptautiskie-ligumi/id/1750-latvijas-republikas-valdibas-igaunijas-republikas-valdibas-un-lietuvas-republikas-valdibas-noligums-par-sadarbibu-katastrofu]. Accessed 26 August 2020.
[3] International Document. 1 June 2004. "Agreement between the Government of the Republic of Latvia and the

Government of the Republic of Belarus on co-operation in the prevention of disasters, natural disasters and other emergencies and their elimination (Latvijas Republikas valdības un Baltkrievijas Republikas valdības vienošanās par sadarbību katastrofu, dabas stihiju, citu ārkārtēju situāciju novēršanā, kā arī to seku likvidēšanā)". [https://likumi.lv/ta/lv/starptautiskie-ligumi/id/167-latvijas-republikas-valdibas-un-baltkrievijas-republikas-valdibas-vienosanas-par-sadarbibu-katastrofu-dabas-stihiju-citu-arkarteju]. Accessed 26 August 2020.
[4] International Document. 29 July 2011. "Agreement between the Government of the Republic of Latvia and the Government of the Russian Federation on cooperation in the prevention and elimination of emergency situations (Latvijas Republikas valdības un Krievijas Federācijas valdības vienošanās par sadarbību ārkārtējo situāciju novēršanas un likvidēšanas jomā)". [https://likumi.lv/ta/lv/starptautiskie-ligumi/id/756-latvijas-republikas-valdibas-un-krievijas-federacijas-valdibas-vienosanas-par-sadarbibu-arkartejo-situaciju-noversanas]. Accessed 26 August 2020.
[5] State Fire and Rescue Service. "Biliteral Agreements". [https://vugd.gov.lv/lat/par_vugd/starptautiska_sadarbiba/divpuseja_sadarbiba]. Accessed 26 August 2020.
[6] European Commission. 4 May 2020. "EU Civil Protection Mechanism". [https://ec.europa.eu/echo/what/civil-protection/mechanism_en]. Accessed 15 October 2020.
[7] European Commission. 24 February 2020. "The EU's Response to Covid-19". [https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_307]. Accessed 15 October 2020.
[8] European Center for Disease Prevention and Control (ECDC). "ECDC activities on epidemic intelligence and outbreak response". [https://www.ecdc.europa.eu/en/about-us/what-we-do/ecdc-activities-epidemic-intelligence-and-outbreak-response]. Accessed 15 October 2020.
[9] European Center for Disease Prevention and Control (ECDC). "Situation updates on Covid-19". [https://www.ecdc.europa.eu/en/covid-19/situation-updates]. Accessed 15 October 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

While Latvia has cross-border agreements with other countries on animal health, there is no evidence that these cover animal health emergencies. Latvian agencies have bilateral agreements with the responsible bodies of several states, such as the Agreement between the Ministry of Agriculture and Food of the Republic of Belarus and the Food and Veterinary Service of the Republic of Latvia on the allocation of the vaccines to the emergency vaccination plan against classical swine fever in Belarus and for the implementation of surveillance measures for this disease. Another example is the Cooperation Agreement with Estonia on Epidemiological Investigations of African Swine Fever in Estonia and Latvia [1]. However, there is no explicit mention of animal health emergencies in these agreements [1]. No cross-border agreement that covers animal health emergencies could be located on the website of the Ministry of Health [2]. Latvia is also a member of The World Organization for Animal Health (OIE) [3], the Food and Agriculture Organization of the United Nations (FAO) [4] and is operating in accordance with Regulation 2016/429 of the European Parliament and of the Council "Animal Health Law" (adopted 2016) [5].

[1] Ministry of Agriculture of the Republic of Latvia. "Food and Veterinary Service. Agreements on International Cooperation". [https://www.zm.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/starptautiskas-sadarbibas-ligumi?id=7206#jump]. Accessed 27 August 2020.
[2] Ministry of Health of the Republic of Latvia. "Normative Documents". [https://www.vm.gov.lv/lv/nozare/normativie_dokumenti/]. Accessed 15 October 2020.
[2] Ministry of Agriculture of the Republic of Latvia. "Food and Veterinary Service. International Institutional Cooperation".

[https://www.zm.gov.lv/partikas-un-veterinarais-dienests/statiskas-lapas/daliba-starptautiskajas-organizacijas?id=7208#jump]. Accessed 27 August 2020.
[3] Food and Agriculture Organization of the United Nations. "Country Profile for Latvia". [http://www.fao.org/countryprofiles/index/en/?iso3=LVA]. Accessed 27 August 2020.
[4] European Commission. March 2016. "The EU Animal Health Law". [https://ec.europa.eu/food/animals/health/regulation_en]. Accessed 27 August 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 4

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

Does the country meet at least 2 of the following criteria?
- Membership in Global Health Security Agenda (GHSA)
- Membership in the Alliance for Country Assessments for Global Health Security and IHR Implementation (JEE Alliance)
- Membership in the Global Partnership Against the Spread of Weapons and Materials of Mass Destruction (GP)
- Membership in the Australia Group (AG)
- Membership in the Proliferation Security Initiative (PSI)
Needs to meet at least two of the criteria to be scored a 1 on this measure. , Yes for five = 1 , Yes for four = 1 , Yes for three = 1 , Yes for two = 1 , Yes for one = 0 , No for all = 0

Current Year Score: 1

2021

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

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

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

5.4.1a

Has the country completed a Joint External Evaluation (JEE) or precursor external evaluation (e.g., GHSA pilot external assessment) and published a full public report in the last five years?
Yes = 1 , No = 0

Current Year Score: 1

2021

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

5.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that, in the past three years, Latvia has allocated national funds to improve capacity to address epidemic threats. No such evidence was found on the websites of the Ministry of Health, the Center for Disease Prevention

and Control, the Ministry of Agriculture, the Ministry of Finance, or that of the president's office [1, 2, 3, 4, 5]. No evidence of funds dedicated to improving domestic capacity to address epidemic threats was found in the state's budgets for the years 2018, 2019 and 2020 [6, 7, 8].

[1] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 24 September 2020.
[2] Center for Disease Prevention and Control of Latvia. "News". [https://www.spkc.gov.lv/lv/aktualitates]. Accessed 24 September 2020.
[3] Ministry of Agriculture of the Republic of Latvia. "News". [https://www.zm.gov.lv/]. Accessed 24 September 2020.
[4] Ministry of Finance of the Republic of Latvia. "News". [https://www.fm.gov.lv/lv/aktualitates/jaunumi/]. Accessed 24 September 2020.
[5] President of the Republic of Latvia. [https://www.president.lv/lv#gsc.tab=0]. Accessed 15 October 2020.
[6] Ministry of Finance of the Republic of Latvia. 2018. "State Budget/Ministry of Health". [https://www.fm.gov.lv/lv/sadalas/valsts_budzets/valsts_budzeta_vizualizacija/_budzets2018/]. Accessed 24 September 2020.
[7] Ministry of Finance of the Republic of Latvia. 2019. "State Budget/Ministry of Health". [https://www.fm.gov.lv/lv/sadalas/valsts_budzets/valsts_budzeta_vizualizacija/_budzets2019/]. Accessed 24 September 2020.
[8] Ministry of Finance of the Republic of Latvia. 2020. "State Budget/Ministry of Health". [https://www.fm.gov.lv/lv/sadalas/valsts_budzets/valsts_budzeta_vizualizacija/_budzets2020/]. Accessed 15 October 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 1

Latvia has a publicly identified special emergency public financing mechanism and funds that it can access in the face of a public health emergency. According to the Epidemiological Safety Law (adopted 1998, last amended 2020), Section 4, in case of an epidemic or pandemic, as well as in crises threatening to cause an epidemic, financing for additional vaccinations as well as implementation of quarantine and other measures is to be granted from the state budget fund dedicated to "Funds for Unforeseen Events", in accordance with the law on the relevant annual state budget [1]. In such cases, the decision to grant funding is taken by the Cabinet of Ministers [1]. As of March 2020, the state budget for "Funds for Unforeseen Events" has been used to cover a multitude of expenditures related to Covid-19, such as production, packaging, and transportation of disinfectants, replenishment of state material reserves, and remuneration of overtime work for state institutions (including hospitals) [2].

[1] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 24 September 2020.
[2] Cabinet of Ministers of the Republic of Latvia. No.103 of 12 March 2020. "Regarding Declaration of the Emergency Situation (Par ārkārtējās situācijas izsludināšanu)". [https://likumi.lv/ta/id/313191-par-arkartejas-situacijas-izsludinasanu]. Accessed 24 September 2020.

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

5.5.4a

Is there evidence that senior leaders (president or ministers), in the past three years, have made a public commitment either to:
- Support other countries to improve capacity to address epidemic threats by providing financing or support?
- Improve the country's domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity?

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

Current Year Score: 0

There is no publicly available evidence that, in the past three years, senior leaders have made a public commitment to either support other countries to improve their capacity to address epidemic threats by providing financing or support, or to improve Latvia's own domestic capacity to address epidemic threats by expanding financing or requesting support to improve capacity. No such evidence could be found on the websites of the Ministry of Foreign Affairs, the Ministry of Health, the World Health Organization, the Global Health Security Funding Tracking Dashboard, or in local or international media [1,

2, 3, 4, 5].

[1] Ministry of Foreign Affairs of the Republic of Latvia. "News". [https://www.mfa.gov.lv/aktualitates]. Accessed 21 September 2020.
[2] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 21 September 2020.
[3] World Health Organization (WHO). "News releases". [https://www.who.int/news-room/releases]. Accessed 21 September 2020.
[4] Georgetown Infectious Disease Atlas (GIDA). "Global Health Security Tracker: Latvia/Funder". [https://tracking.ghscosting.org/details/139/funder]. Accessed 21 September 2020.
[5] Georgetown Infectious Disease Atlas (GIDA). "Global Health Security Tracker: Latvia/Recipient". [https://tracking.ghscosting.org/details/139/recipient]. Accessed 21 September 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:
- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?
Needs to meet at least one of the criteria to be scored a 1 on this measure., Yes for both = 1, Yes for one = 1, No for both = 0

Current Year Score: 0

In the past three years, there is no publicly available evidence that Latvia has assisted other countries in improving their capacity to address epidemic threats, nor has the country requested assistance to improve its capacity to address epidemic threats. There is no publicly available evidence pertaining to this on the websites of the Ministry of Health, Ministry of Foreign Affairs, or on the World Health Organization (WHO) country or regional page [1, 2, 3, 4]. The Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracking site does not have evidence that Latvia has provided or received funding to improve the country's domestic capacity to address epidemic threats [5, 6]. However, in 2020, Latvia has assisted in improving response capacity to Covid-19 pandemic by committing EUR100,000 (US$118,000) in funding to the WHO's Covid-19 preparedness and emergency response [7] and by also sending EUR100,000 (US$118,000) worth of personal protective equipment and disinfectants to EU member states hit worst by Covid-19 (Spain, Italy and San Marino) [8].

[1] Ministry of Health of the Republic of Latvia. "Press Releases". [https://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 21 September 2020.
[2] Ministry of Foreign Affairs of the Republic of Latvia. "News". [https://www.mfa.gov.lv/aktualitates]. Accessed 21 September 2020.
[3] World Health Organization (WHO). "Country page for Latvia". [http://www.euro.who.int/en/countries/latvia]. Accessed 14 October 2020.
[4] World Health Organization (WHO). "European Region. News. Events. Publications". [http://www.euro.who.int/en/home]. Accessed 14 October 2020.
[5] Georgetown Infectious Disease Atlas (GIDA). "Global Health Security Tracker: Latvia/Funder". [https://tracking.ghscosting.org/details/139/funder]. Accessed 21 September 2020.
[6] Georgetown Infectious Disease Atlas (GIDA). "Global Health Security Tracker: Latvia/Recipient". [https://tracking.ghscosting.org/details/139/recipient]. Accessed 21 September 2020.
[7] Cabinet of Ministers of the Republic of Latvia. No.180 of 16 April 2020. "On Contribution to the Budget of the United Nations Office for the Coordination of Humanitarian Affairs and the World Health Organization Global Humanitarian Aid Plan for Combating Covid-19 (Par iemaksu ANO Humānās palīdzības koordinācijas biroja un Pasaules Veselības organizācijas

Globālā humānās palīdzības plāna cīņai ar Covid-19 budžetā)". [https://likumi.lv/ta/id/314060-par-iemaksu-ano-humanas-palidzibas-koordinacijas-biroja-un-pasaules-veselibas-organizacijas-globala-humanas-palidzibas-plana-cinai-ar-covid-19-budzeta]. Accessed 21 September 2020.
[8] LETA. 23 April 2020. "Latvia plans to provide material assistance to the EU countries most affected by the Covid-19 crisis (Latvija plāno sniegt materiālu palīdzību Covid-19 krīzes visvairāk skartajām ES valstīm)". [https://skaties.lv/zinas/latvija/latvija-plano-sniegt-materialu-palidzibu-covid-19-krizes-visvairak-skartajam-es-valstim/]. Accessed 21 September 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: 1

Latvia's commitment to share epidemiological data beyond influenza and isolated specimens with international health organizations and other countries is made explicit in legislation.

According to the Epidemiological Safety Law (adopted 1998, last amended 2020), the Ministry of Health and entities under its supervision shall co-operate with foreign and international health organizations in exchange of both routine and emergency epidemiological information [1]. Furthermore, regulation No.752 "Regulations Regarding Counter-epidemic Measures for Measles and Rubella" (adopted 2013, last amended 2013) include a commitment to share epidemiological data with the World Health Organization (WHO) and the European Center for Disease Prevention and Control (ECDC) [2]. Regulation No.328 "Regulations Regarding Counter-epidemic Measures for Poliomyelitis" (adopted 2008, last amended 2020) states that isolates of polioviruses are to be sent to the regional reference center of the World Health Organization for detailed type determination [3].

[1] Parliament of the Republic of Latvia. 13 January 1998. "Epidemiological Safety Law (Epidemioloģiskās drošības likums)". [https://likumi.lv/ta/id/52951-epidemiologiskas-drosibas-likums]. Accessed 26 August 2020.

[2] Cabinet of Ministers of the Republic of Latvia. No.752 of 1 January 2013. "Regulations Regarding Counter-epidemic Measures of Measles and Rubella (Noteikumi par masalu un masaliņu pretepidēmijas pasākumiem)". [https://likumi.lv/ta/id/252619-noteikumi-par-masalu-un-masalinu-pretepidemijas-pasakumiem]. Accessed 26 August 2020.
[3] Cabinet of Ministers of the Republic of Latvia. No.328 of 17 May 2008. "Regulations Regarding Counter-epidemic Measures for Poliomyelitis (Noteikumi par poliomielīta pretepidēmijas pasākumiem)". [https://likumi.lv/ta/id/175372-noteikumi-par-poliomielita-pretepidemijas-pasakumiem]. Accessed 26 August 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 Latvia has not shared influenza samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. The World Health Organization has not reported a lack of compliance from Latvia [1, 2], nor can such information be found in Ministry of Health releases [3]. Furthermore, Latvia's Influenza Pandemic Readiness Plan, 2018, specifically refers to routinely sending influenza virus isolates to the regional WHO reference center in accordance with the "Regulations Regarding Influenza Counter-epidemic Measures" (adopted 2006, last amended 2012) [4, 5].

[1] World Health Organization (WHO). 8-12 May 2017. "Joint External Evaluation of IHR Core Capacities of the Republic of Latvia". [http://apps.who.int/iris/bitstream/handle/10665/258969/WHO-WHE-CPI-2017.27.report-eng.pdf?sequence=1]. Accessed 26 August 2020.
[2] Flu News Europe. "Joint ECDC - WHO/Europe weekly influenza update". [http://flunewseurope.org/]. Accessed 26 August 2020.
[3] Ministry of Health of the Republic of Latvia. "Press Releases". [http://www.vm.gov.lv/lv/aktualitates/preses_relizes/]. Accessed 26 August 2020.
[4] Ministry of Health of the Republic of Latvia. 2018. "Influenza Pandemic Readiness Plan. 2018 (Gripas pandēmijas gatavības plāns. 2018)". [http://www.nmpd.gov.lv/nmpd/katastrofu_medicina/km_planosana_un_koordinacija/]. Accessed 26 August 2020.
[5] Cabinet of Ministers of the Republic of Latvia. No.948 of 25 November 2006. "Regulations Regarding Influenza Counter-epidemic Measures (Noteikumi par gripas pretepidēmijas pasākumiem)". [https://likumi.lv/ta/id/148626-noteikumi-par-gripas-pretepidemijas-pasakumiem]. Accessed 26 August 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 public evidence that Latvia has not shared Covid-19 samples during this year's outbreak or any other pathogen samples during an outbreak in the past two years. Such evidence is absent from the World Health Organization website and also in international and local media [1].

[1] World Health Organization (WHO). "Disease Outbreak News". [http://www.who.int/csr/don/en/]. Accessed 26 August 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 4

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 57

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: 4

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: 3

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: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

Does the government's authority extend over the full territory of the country?

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

Is there a threat that international disputes/tensions could have a negative effect?

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

Current Year Score: 3

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

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

Input number

Current Year Score: 99.9

2011

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: 0.83

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

2017

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: 0

Latvia's share of employment in the informal sector is below 25%. According to the Shadow Economy Index for Baltic Countries 2009-2019, published by the Stockholm School of Economics in Riga on 10 June 2020, the amount of non-reported employees (employees working without a contract as a percentage of the total number of employees) in Latvia in 2019 was 10.9% [1]. The index has been measured annually since 2009, and the data is republished by the OECD Economic Survey for Latvia (periodic survey, last published in 2019) [1, 2]. The statistical databases of the World Bank and the International Labor Organization do not provide data on Latvia's informal employment [3, 4, 5].

[1] Sauka, Arnis and Putniņš, Tālis. 10 June 2020. “Shadow Economy Index for the Baltic Countries 2009-2019”. [https://www.sseriga.edu/shadow-economy-index-baltic-countries]. Accessed 26 August 2020.

[2] Organization for Economic Co-operation and Development (OECD). "OECD Economic Surveys: Latvia". [https://www.oecd-ilibrary.org/economics/oecd-economic-surveys-latvia_25222988]. Accessed 26 August 2020.
[3] International Labor Organization. "Country profiles". [https://ilostat.ilo.org/data/country-profiles/]. Accessed 26 August 2020.
[4] International Labor Organization. "Statistics on the informal economy". [https://ilostat.ilo.org/topics/informality/]. Accessed 26 August 2020.
[5] World Bank. "Informal employment (% of total non-agricultural employment)". [https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS?locations=LV]. Accessed 26 August 2020.

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 3

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: 0.35

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: 3

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 3

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 68.22

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: 1.01

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: 3

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: 74.78

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: 558.7

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 20.34

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 36.7

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 23.6

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: 98.63

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 92.15

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: 1132.08

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: 0

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: 2

2018

Wellcome Trust Global Monitor 2018