

Belgium

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

CATEGORY 1: PREVENTING THE EMERGENCE OR RELEASE OF PATHOGENS WITH POTENTIAL FOR INTERNATIONAL CONCERN	4
1.1 Antimicrobial resistance (AMR)	4
1.2 Zoonotic disease	7
1.3 Biosecurity	14
1.4 Biosafety	24
1.5 Dual-use research and culture of responsible science	26
1.6 Immunization	31
CATEGORY 2: EARLY DETECTION AND REPORTING FOR EPIDEMICS OF POTENTIAL INTERNATIONAL CONCERN	32
2.1 Laboratory systems strength and quality	32
2.2 Laboratory supply chains	34
2.3 Real-time surveillance and reporting	36
2.4 Surveillance data accessibility and transparency	38
2.5 Case-based investigation	44
2.6 Epidemiology workforce	46
CATEGORY 3: RAPID RESPONSE TO AND MITIGATION OF THE SPREAD OF AN EPIDEMIC	48
3.1 Emergency preparedness and response planning	48
3.2 Exercising response plans	51
3.3 Emergency response operation	53
3.4 Linking public health and security authorities	55
3.5 Risk communications	56
3.6 Access to communications infrastructure	59

3.7 Trade and travel restrictions	60
-----------------------------------	----

CATEGORY 4: SUFFICIENT AND ROBUST HEALTH SECTOR TO TREAT THE SICK AND PROTECT HEALTH WORKERS 62

4.1 Health capacity in clinics, hospitals, and community care centers	62
---	----

4.2 Supply chain for health system and healthcare workers	65
---	----

4.3 Medical countermeasures and personnel deployment	70
--	----

4.4 Healthcare access	71
-----------------------	----

4.5 Communications with healthcare workers during a public health emergency	74
---	----

4.6 Infection control practices and availability of equipment	75
---	----

4.7 Capacity to test and approve new medical countermeasures	76
--	----

CATEGORY 5: COMMITMENTS TO IMPROVING NATIONAL CAPACITY, FINANCING PLANS TO ADDRESS GAPS, AND ADHERING TO GLOBAL NORMS 78

5.1 International Health Regulations (IHR) reporting compliance and disaster risk reduction	78
---	----

5.2 Cross-border agreements on public health and animal health emergency response	79
---	----

5.3 International commitments	80
-------------------------------	----

5.4 Joint External Evaluation (JEE) and Performance of Veterinary Services Pathway (PVS)	82
--	----

5.5 Financing	83
---------------	----

5.6 Commitment to sharing of genetic and biological data and specimens	87
--	----

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

6.1 Political and security risk	89
---------------------------------	----

6.2 Socio-economic resilience	92
-------------------------------	----

6.3 Infrastructure adequacy	95
-----------------------------	----

6.4 Environmental risks	95
-------------------------	----

6.5 Public health vulnerabilities	96
-----------------------------------	----

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

Belgium has a national AMR plan for the surveillance, detection, and reporting of priority pathogens that covers the period 2014-2019. According to the WHO Joint External Evaluation for Belgium, conducted in June 2017, the Belgian Antibiotic Policy Coordination Committee (BAPCOC) has in place an action plan to coordinate policies and interventions for AMR detection. [1] The BAPCOC 2014-2019 plan of action created a Technical Committee for AMR surveillance and issues protocols and recommendations for the detection of AMR, but this plan has not been updated for the period after 2019. The surveillance mechanism described in the plan involves recording patterns and trends of antibiotic use as well as drug-resistant pathogens and hospital-acquired infections (HAIs). Detection of AMR pathogens is performed in Belgium by the National Reference Centre, which supports all Belgian hospitals and private laboratories to detect drug resistance in pathogens. Reporting of AMR pathogen detection is obligatory for 6 months of every year, but most Belgian hospitals report on AMR pathogens throughout the year voluntarily. [2, 3] The second version of the European Antimicrobial Resistance Surveillance Network Belgium (EARS-Net BE) protocol 2017 lays out the case definition and inclusion criteria for AMR and the procedures for reporting AMR cases. [4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 12 November 2020.

[2] Belgian Antibiotic Policy Coordination Committee. 2014. "Policy Note for the 2014-2019 Legislature (Note de politique pour la législature 2014-2019)".

[https://organesdeconcertation.sante.belgique.be/sites/default/files/documents/belgische_commissie_voor_de_coordinatie_van_het_antibioticabeleid-fr/19100224_fr.pdf]. Accessed 12 November 2020.

[3] European Centre for Disease Prevention and Control. 11 July 2018. "Mission Report: ECDC country visit to Belgium to discuss antimicrobial resistance issues". [http://ecdc.europa.eu/sites/portal/files/documents/ECDC-AMR-country-visit-report_Belgium-2017.pdf]. Accessed 12 November 2020.

[4] Scientific Institute for Public Health (WIV-ISP). 19 January 2018. "The European Antimicrobial Resistance Surveillance Network Belgium (EARS-Net BE) protocol 2017 (version 2)". [https://www.wiv-isp.be/Nsih/download/EARSNet_protocol_2017_v2.pdf]. Accessed 12 November 2020.

1.1.1b

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

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

Current Year Score: 2

Belgium has a national laboratory system, the Scientific Institute of Public Health (WIV-ISP), which test for all 7+1 WHO priority pathogens. The WHO Joint External Evaluation for Belgium, conducted in June 2017, states that laboratories have been designated and financed to be National Reference Centres for a number of pathogens, including all WHO priority pathogens. [1] This testing is conducted per the request and protocols of the European Antimicrobial Resistance Surveillance Network (EARS-Net). [2] The Belgian Antibiotic Policy Coordination Committee (BAPCOC) oversees AMR testing for E. coli, K. pneumoniae, S. aureus, and S. pneumoniae. [3] The Belgian Scientific Institute of Public Health (WIV-ISP) oversee the sentinel sites that test for Salmonella and Shigella spp., Mycobacterium tuberculosis., and N. gonorrhoeae. [4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 12 November 2020

[2] The Scientific Institute of Public Health (WIV-ISP). 26 February 2018. "The European Antimicrobial Resistance Surveillance Network Belgium (EARS-Net BE) protocol 2017: Including data call, instructions for participating laboratories data definition reporting procedure (Version 3)". [http://www.nsih.be/download/EARSNet_protocol_2017_v3.pdf]. Accessed 12 November 2020

[3] Sciensano. November 2017. "European Antimicrobial Resistance Surveillance Network (EARS-Net Belgium) Report 2017 (2nd version)". [http://www.nsih.be/download/2017_EARS_NationalReport_Belgium.pdf]. Accessed 12 November 2020

[4] The Scientific Institute of Public Health (WIV-ISP). "Pathogens - reference centres (from the 01/01/2020) (Pathogènes - centres de référence (à partir du 01/01/2020))". [https://nrchm.wiv-isp.be/fr/centres_ref_lab/default.aspx]. Accessed 12 November 2020

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Belgian government conducts detection or surveillance activities for antimicrobial residues or AMR organisms in the environment. Belgium conducted a Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS) in 2019-2020, in which it states that Belgium collects data and reports on a regular basis on the "quantity of pesticides including antimicrobial pesticides such as bactericides and fungicides sold/used in plant production for the purpose of controlling bacteria or fungal diseases". [1] The self-assessment Belgium conducted for the WHO Database for AMR makes no mention of AMR activities conducted by the government. [2] There is also no evidence of these from the Belgian Ministry of Health and Environment, nor in the 2014-2019 Policy Paper written by the Belgian Antibiotic policy Coordination Committee. [3, 4, 5] In addition, Belgium has not published a National Action Plan (NAP). [6]

[1] Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS). 2019-2020. "Belgium" [<https://amrcountryprogress.org/>] Accessed 13 November 2020

[2] World Health Organisation (WHO). 2018. "Global Database for Antimicrobial Resistance Country Self Assessment". [<https://amrcountryprogress.org/>]. Accessed 29 November 2020

[3] Belgian Federal Public Service - Health, Food Chain Safety, and Environment. 2017. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 29 November 2020

[4] Joint Programming Initiative on Antimicrobial Resistance. "Belgium". [<https://www.jpjamr.eu/about/participating->

members/belgium/]. Accessed 29 November 2020

[5] Belgian Antibiotic Policy Coordination Committee. "Policy paper for the 2014-2019 term".

[https://organesdeconcertation.sante.belgique.be/sites/default/files/documents/policy_paper_bapcoc_executive_summary_2014-2019_english.pdf]. Accessed 29 November 2020

[6] World Health Organisation (WHO). 2018. "Library of National Action Plans". [<http://www.who.int/antimicrobial-resistance/national-action-plans/library/en/>]. Accessed 29 November 2020

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 2

There is evidence that Belgium has in place legislation requiring the prescription of antibiotic use for humans. A European Commission report on antimicrobial resistance (AMR) in Europe reports that in Belgium, it is illegal to purchase antibiotics over the counter (except for certain creams and eye drops), and pharmacists may not deliver antibiotics to a patient without that patient presenting a prescription, although this information comes from the University of Antwerp rather than the Ministry of Health, and this law is not publicly available. This report also does not specify whether Belgium has any laws in place regarding antibiotic use in outpatient settings. [1] The Belgian "Decree fixing the norms to which a hospital office must comply to be approved" is not fully available to the public, although it stipulates a surveillance mechanism within hospitals whereby a pharmaco-medical committee ensures that antibiotics are correctly prescribed. [1, 2] The Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS) specifically states that Belgium has in place laws or regulations controlling use of antibiotics in human health, and there is no evidence of any gaps in enforcement. [3]

[1] European Commission. April 2017. "Antimicrobial resistance and causes of non-prudent use of antibiotics in human medicine in the EU (Section 3.4.3 - Legal Framework)".

[https://ec.europa.eu/health/amr/sites/amr/files/amr_arna_report_20170717_en.pdf]. Accessed 13 November 2020

[2] Public Health and Environment (Santé Publique et Environnement). Law 19911025060, 23 March 1991. "Royal decree fixing the norms to which a hospital office must comply to be approved (Arrêté royal fixant les normes auxquelles une officine hospitalière doit satisfaire pour être agréée)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=1991030433&table_name=loi]. Accessed 13 November 2020

[3] Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS). 2019-2020. "Belgium" [<https://amrcountryprogress.org/>] Accessed 13 November 2020

1.1.2b

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

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

Current Year Score: 2

There is publicly available information of national legislation in place in Belgium requiring prescriptions for antibiotic use for animals, and there is no evidence of a gap in implementation. In Belgium, antibiotics cannot be administered to animals without a prescription by a veterinarian according to information provided by the Federal Agency for Medicines and Health

Products (L'Agence fédérale des médicaments et des produits de santé). [1] Chapter 3 of the Royal decree concerning the conditions of use of medication by doctors in veterinary medicine and by the persons responsible for animals (Arrêté royal relatif aux conditions d'utilisation des médicaments par les médecins vétérinaires et par les responsables des animaux) and the Law concerning animal health (Loi relative à la santé animale) stipulate that only a doctor in veterinary medicine (this law makes no mention of doctors in human medicine) may prescribe an antibiotic. [2, 3] In addition, the Centre of knowledge concerning the use of and the resistance to antibiotics in animals (Centre de connaissance concernant l'utilisation et les résistances aux antibiotiques chez les animaux, or AMCRA) published directives on only prescribing antibiotics after a diagnosis by a veterinarian, which should preferably be confirmed by a complementary examination. [4] The Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS) Belgium completed in 2019-2020 specifically states that Belgium has in place legislation governing the use of antibiotics in humans. [5]

[1] Federal Agency for Medication and Health Products (Agence Fédérale des Médicaments et des Produits de Santé). 20 February 2017. "Furnishing medication to the owner of animals (Fourniture de médicaments au propriétaire ou au détenteur d'animaux)".

[https://www.afmps.be/fr/veterinaire/medicaments/medicaments/distribution/fourniture_de_medicaments_au_responsable_d_animaux]. Accessed 13 November 2020

[2] Public Health, Food Chain Safety and Environment; Federal Agency for Medication and Health Products (Santé publique, Sécurité de la Chaîne Alimentaire et Environnement; Agence Fédérale des Médicaments et des Produits de Santé). Law C - 2016/24152, 21 July 2016. "Royal decree concerning the conditions of use of medication by doctors in veterinary medicine and by the persons responsible for animals (Arrêté royal relatif aux conditions d'utilisation des médicaments par les médecins vétérinaires et par les responsables des animaux)."

[[http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl?=&sql=\(text+contains+\(%27%27\)\)&rech=1&language=fr&tri=dd+AS+RANK&numero=1&table_name=loi&F=&cn=2016072106&caller=image_a1&fromtab=loi&la=F&pdf_page=215&pdf_file=http://www.ejustice.just.fgov.be/mopdf/2016/07/29_1.pdf](http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl?=&sql=(text+contains+(%27%27))&rech=1&language=fr&tri=dd+AS+RANK&numero=1&table_name=loi&F=&cn=2016072106&caller=image_a1&fromtab=loi&la=F&pdf_page=215&pdf_file=http://www.ejustice.just.fgov.be/mopdf/2016/07/29_1.pdf)]. Accessed 13 November 2020

[3] Agriculture. Law 1987016057, 24 March 1987. "Law concerning animal health (Loi relative à la santé animale)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=1987032435&table_name=loi]. Accessed 13 November 2020

[4] Centre for knowledge concerning the use of and the resistance to antibiotics in animals (Centre de connaissance concernant l'utilisation et les résistances aux antibiotiques chez les animaux) (AMCRA). 2016. "Vade-mecum for a responsible use of antibiotics in animals (Vade-mécum pour un usage responsable des antibiotiques chez les animaux)".

[<https://formularium.amcra.be/>]. Accessed 13 November 2020

[5] Global Database for the Tripartite Antimicrobial Resistance (AMR) Country Self-assessment Survey (TrACSS). 2019-2020. "Belgium" [<https://amrcountryprogress.org/>] Accessed 13 November 2020

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1, No = 0

Current Year Score: 1

Belgium has in place a policy for the surveillance, prevention, and control of zoonotic diseases that constitute a public health concern. The WHO Joint External Evaluation for Belgium, conducted in June 2017 mentions that Belgium has in place a plan that follows European Union (EU) directives including the Directive 2003/99/EC of the European Parliament and of the

Council of 17 November 2003 on the monitoring of zoonoses and zoonotic agents. [1] This 2003/99/EC Directive outlines measures for the protection of human health against infections and diseases of animal origin, as well as against zoonoses transmissible by food, or through wild animals or pets. [2] The Belgian Scientific Institute of Public Health (WIV-ISP) ensures surveillance for brucellosis, tuberculosis, Q-fever, rabies, West Nile fever, salmonella, avian influenza, and trichinella, which are deemed of immediate public health concern, and the Federal Agency for the Safety of the Food Chain (AFSCA) is responsible for the prevention of all animal-to-human diseases. [3, 4] The control of any zoonotic outbreaks is the responsibility of the Region in which the outbreak occurs, although the AFSCA local unit is available for consultation. [4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] EUR-Lex. 12 December 2003. "Directive 2003/99/EC of the European Parliament and of the Council of 17 November 2003 on the monitoring of zoonoses and zoonotic agents, amending Council Decision 90/424/EEC and repealing Council Directive 92/117/EEC". [<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32003L0099>]. Accessed 13 November 2020

[3] Scientific Institute of Public Health (WIV-ISP). December 2017. "Zoonoses and vector-borne diseases (Zoonoses et maladies à transmission vectorielle)". [<https://epidemiowiv-isp.be/ID/reports/Zoonoses%20et%20maladies%20%C3%A0%20transmission%20vectorielle.%20Rapport%20annuel%202015%20et%202016.pdf>]. Accessed 13 November 2020

[4] Federal Agency for the Safety of the Food Chain. 5 July 2018. "Prevention of infectious animal diseases which must be declared (Prévention des maladies animales contagieuses à déclaration obligatoire)". [<http://www.afsca.be/santeanimale/prevention/>]. Accessed 13 November 2020

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Belgium has in place national legislation or strategy documents including measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. There is no evidence from the Ministries of Health or the Ministry of Agriculture, the Federal Public Health Service, or the Research Federation as to any such legislation, nor from the WHO Joint External Evaluation report for Belgium, conducted in June 2017. [1, 2, 3, 4, 5, 6]

[1] Belgian Federal Public Service Ministry of Health (Service Public Fédéral Belge Ministère de la Santé). 2018. "Epidemics (Epidémies)". [https://www.belgium.be/fr/sante/risques_pour_la_sante/epidemies]. Accessed 13 November 2020

[2] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[3] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 13 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 13 November 2020

[6] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 13 November 2020

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

Belgium has in place plans for surveillance for over five zoonotic diseases of public health concern, as well as established and functional mechanisms for responding to potential zoonotic diseases. However, no specific mention of controlling these diseases is made. The list of zoonotic diseases are mandated by the Royal decree defining the animal diseases which must be declared. [1] The Royal decree defining the animal diseases which must be declared describes the official surveillance in place for brucellosis, tuberculosis, Q-fever, rabies, West Nile fever, salmonella, avian influenza, and trichinella, and states that notifiable animal diseases and zoonoses must be reported at national and regional level, but no mention is made of specific control measures with regards to these diseases. [1] The WHO Joint External Evaluation report for Belgium, conducted in June 2017, mentions that a mechanism is in place for sharing reports between the human and animal health sectors in the event of zoonotic emergencies, and that surveillance is in place for the eight zoonotic diseases noted above, but again makes no mention of specific control measures. [2] There are also no publicly available details of the strategy as a whole, neither from the Ministry of Public Health, Food Chain Safety, and Environment, nor from the Federal Agency for Food Chain Safety (AFSCA), or the Ministry of Agriculture. [3, 4, 5, 6]

[1] Public Health, Food Chain Safety and Environment; Federal Agency for Medication and Health Products (Santé publique, Sécurité de la Chaîne Alimentaire et Environnement; Agence Fédérale des Médicaments et des Produits de Santé). Law C - 2014/024064, 3 février 2014. "Royal decree defining the animal diseases to which applies chapter III of the law of the 24th of March 1987 concerning the health of animals and establishing the obligation to declare (Arrêté royal désignant les maladies des animaux soumises à l'application du chapitre III de la loi du 24 mars 1987 relative à la santé des animaux et portant règlement de la déclaration obligatoire)." [http://www.etaamb.be/fr/arrete-royal-du-03-fevrier-2014_n2014024064.html]. Accessed 13 November 2020

[2] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[4] Federal Agency for Food Chain Safety (AFSCA). 2018. "Animal Production (Production Animale)". [<http://www.afsca.be/professionnels/productionanimale/>]. Accessed 13 November 2020

[5] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr/>]. Accessed 29 November 2020

[6] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 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 publicly available evidence that Belgium has a unit dedicated to zoonotic disease that functions across ministries. In the event of a zoonotic pathogen detected in humans, domestic animals, or wildlife, the Federal Public Service (FPS) for Public Health and the Safety of the Food Chain and the Environment (HSFCE), or the Federal Agency for the Safety of the Food Chain (AFSCA) respectively, intervene in conjunction with the regional authorities as is set out by law in the Royal decree defining the animal diseases which must be reported. In addition, while there is no national body such as a national zoonoses committee that convenes and leads all relevant groups in addressing zoonotic outbreaks in a coordinated matter, such a body can be established ad hoc when necessary, in the event of a public health emergency. [1] The WHO Joint External Evaluation for Belgium, completed in June 2017, mentions that there also exist working groups and networks (e.g. the Foodborne Outbreaks Platform, Wildlife Health surveillance networks, the Wildlife Working Group, etc.) that regularly convene the units involved in surveillance, prevention, and management of zoonotic events. The JEE also mentions that Belgium is currently developing a data sharing platform, the Platform for the Surveillance of Zoonotic Events (PLASUR), that will facilitate the exchange of information across agencies. [2] There was no mention of a unit dedicated to zoonoses functioning across ministries, nor any indication that the data sharing platform has been developed as of November 2020, from the Federal Agency for Food Chain Safety (AFSCA), from the Ministry of Public Health, Food Chain Safety, and Environment, or from the Ministry of Agriculture. [3, 4, 5, 6]

[1] Public Health, Food Chain Safety and Environment; Federal Agency for Medication and Health Products (Santé publique, Sécurité de la Chaîne Alimentaire et Environnement; Agence Fédérale des Médicaments et des Produits de Santé). Law C - 2014/024064, 3 février 2014. "Royal decree defining the animal diseases to which applies chapter III of the law of the 24th of March 1987 concerning the health of animals and establishing the obligation to declare (Arrêté royal désignant les maladies des animaux soumises à l'application du chapitre III de la loi du 24 mars 1987 relative à la santé des animaux et portant règlement de la déclaration obligatoire)." [http://www.etaamb.be/fr/arrete-royal-du-03-fevrier-2014_n2014024064.html]. Accessed 13 November 2020

[2] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[3] Federal Agency for Food Chain Safety (AFSCA). 2018. "Animal Production (Production Animale)". [<http://www.afsca.be/professionnels/productionanimale/>]. Accessed 13 November 2020

[4] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[5] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[6] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1, No = 0

Current Year Score: 1

Belgium has an official mechanism in place for owners of livestock to conduct and report on disease surveillance to a central government agency. In a suspected case of a notifiable disease, the livestock owner or the veterinarian are legally obligated to immediately inform their local branch ("Unité locale de contrôle" or ULC) of the Federal agency for food chain safety

("Agence fédérale pour la sécurité de la chaîne alimentaire" or AFSCA), as per the Royal decree on obligatory reporting. [1, 2, 3] If laboratory analyses confirm the case, these authorities are then legally obligated to inform the World Organisation for Animal Health (OIE) and the European Union (EU) within 24 hours of the case being discovered, again as laid out in the Royal decree on obligatory reporting. [1, 2] A notifiable disease is defined by the AFSCA as one which has been proven to have spread internationally, and has either been proven to transmit naturally to humans or has been proven to cause significant mortality in animals, and is an emerging infectious disease (EID) presenting the characteristics of a likely zoonosis. [1]

[1] Federal agency for food chain safety (Agence fédérale pour la sécurité de la chaîne alimentaire) (AFSCA). 5 July 2018. "Prevention of infectious animal diseases which must be declared (Prévention des maladies animales contagieuses à déclaration obligatoire)." [<http://www.afsca.be/santeanimale/prevention/>]. Accessed 13 November 2020

[2] Federal agency for food chain safety (Agence fédérale pour la sécurité de la chaîne alimentaire) (AFSCA). Law C - 2003/23054, 14 November 2003. "Royal decree concerning auto-control, obligatory notification, and tracing in the food chain (Arrêté royal relatif à l'autocontrôle, à la notification obligatoire et à la traçabilité dans la chaîne alimentaire)." [http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2003111441&table_name=loi]. Accessed 13 November 2020

[3] Federal public service for public health, food chain safety and environment, and federal agency for food chain safety (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement et agence fédérale pour la sécurité de la chaîne alimentaire). Law 2014024064, 3 February 2014. "Royal decree defining the animal diseases to which applies chapter III of the law of 24 March 1987 concerning animal health and stipulating mandatory reporting (Arrêté royal désignant les maladies des animaux soumises à l'application du chapitre III de la loi du 24 mars 1987 relative à la santé des animaux et portant règlement de la déclaration obligatoire)". [http://www.etaamb.be/fr/arrete-royal-du-03-fevrier-2014_n2014024064.html]. Accessed 13 November 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 does not appear to be any evidence of laws or guidelines to protect the confidentiality of information about disease surveillance. The 2003 Royal decree on obligatory reporting makes no mention of confidentiality, stating on the contrary that it must be possible to trace the infected product or animal. However, this decree states that the origin of the infection is not necessarily made available to any entity beyond the agency responsible for controlling the infection. [1] The 2014 Royal decree on the mandatory reporting of specific diseases outlines the procedure by which a case of potential zoonosis is to be declared, but this does not mention confidentiality either. [2, 3] Belgium published in July 2018 the Law concerning the protection of physical persons with respect to the handling of personal data, which specifically implements its requirements of the European General Data Protection Regulation legislation: while this does not mention specifically disease reporting, it does state that data may be stored anonymously, but in the event that the confidentiality of personal data would obstruct a matter of public interest, of scientific or historic research, or of statistical importance, confidentiality may be waived, though this would be decided on a per-scenario basis. [4] The Ministry of Agriculture mentions confidentiality in the context of a hotline for farmers in difficulties but not in the context of disease reporting. [5] The Ministry of Health and WHO Joint External Evaluation assessment for Belgium, completed in June 2017, make no mention of confidentiality. [6, 7] Belgium has not completed an OIE PVS Evaluation Report. [8]

[1] Federal agency for food chain safety (Agence fédérale pour la sécurité de la chaîne alimentaire) (AFSCA). Law C - 2003/23054, 14 November 2003. "Royal decree concerning auto-control, obligatory notification, and tracing in the food

chain (Arrêté royal relatif à l'autocontrôle, à la notification obligatoire et à la traçabilité dans la chaîne alimentaire)".

[http://www.afsca.be/notificationobligatoire/_documents/2003-11-14_AR_autocontrole.pdf]. Accessed 13 November 2020

[2] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment, and Federal Agency for Food Chain Safety (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement et agence fédérale pour la sécurité de la chaîne alimentaire). Law 2014024064, 3 February 2014. "Royal decree defining the animal diseases to which applies chapter III of the law of 24 March 1987 concerning animal health and stipulating mandatory reporting (Arrêté royal désignant les maladies des animaux soumises à l'application du chapitre III de la loi du 24 mars 1987 relative à la santé des animaux et portant règlement de la déclaration obligatoire)". [http://www.etaamb.be/fr/arrete-royal-du-03-fevrier-2014_n2014024064.html]. Accessed 13 November 2020

[3] Agence fédérale pour la sécurité de la chaîne alimentaire (AFSCA). 3 February 2014. "Annex II to the royal decree of the 3rd of February 2014: form for the obligatory declaration of an infectious disease which must be declared for farmers and veterinarians (Annexe II à l'arrêté royal du 3 février 2014: Formulaire de déclaration obligatoire d'une maladie à déclaration obligatoire pour les exploitants ou les vétérinaires)". [www.afsca.be/notificationobligatoire/_documents/2014-02-03_AR_annexe2-fr.doc]. Accessed 13 November 2020

[4] Internal Justice, National Defence. Law 2018040581, 30 July 2018. "Law concerning the protection of physical persons with respect to the handling of personal data (Loi relative à la protection des personnes physiques à l'égard des traitements de données à caractère personnel)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&table_name=loi&cn=2018073046]. Accessed 13 November 2020

[5] Agriculture SPW. "Groups and advice (Groupements et conseils)". [<https://agriculture.wallonie.be/groupements-et-conseils>]. Accessed 13 November 2020

[6] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[7] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[8] World Organisation for Animal Health (OIE). 2 August 2018. "OIE PVS Evaluation Reports".

[<http://www.oie.int/en/solidarity/pvs-evaluations/pvs-evaluation-reports/>]. Accessed 13 November 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

There is publicly available evidence that Belgium conducts surveillance of zoonotic disease in wildlife. It conducts surveillance of zoonotic diseases in wildlife mainly through the Belgian Wildlife Disease Society (BWDS), which, whilst an independent organisation, works with regional official agencies and scientists, and whose task it is to conduct surveillance of known pathogens and emerging diseases in wildlife, including distemper in carnivores, salmonellosis in garden birds, and Q-fever in ungulates. [1] In Belgium, wildlife surveillance is the responsibility of the regions rather than of the federal government, but several entities convene regularly and collaborate: the national Network of Wildlife Health Surveillance (Réseau de Surveillance Sanitaire de la Faune Sauvage or "RSSFS") in conjunction with the Department of Nature and Forests (Département de la Nature et des Forêts or "DNF") and the Wildlife and Hunting Laboratory (Laboratoire de Faune Sauvage et Cynégétique), as well as several universities, also sample wildlife to conduct surveillance for diseases. [2, 3] All these bodies report findings to the World Organisation for Animal Health (OIE). [1, 3]

[1] Belgian Wildlife Disease Society (BWDS). 2018. "BWDS: Belgian Wildlife Disease Society". [<http://bwds.be/index.html>]. Accessed 13 November 2020

[2] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[3] Network of wildlife health surveillance (Réseau de Surveillance sanitaire de la Faune sauvage). 2018. "Collaborations". [http://www.faunesauvage.be/faune-sauvage/?page_id=52]. Accessed 13 November 2020

1.2.3 International reporting of animal disease outbreaks

1.2.3a

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

Yes = 1, No = 0

Current Year Score: 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: 98.16

2018

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: -

No data available

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

Belgium has approved European Union (EU) guidelines for the collaboration of state entities with the private sector for the control of or response to zoonoses, but there is no evidence these guidelines have been implemented. According to report from the WHO Joint External Evaluation, completed in June 2017, Belgium's strategy for zoonoses surveillance, prevention, and control does not take the form of a national plan but rather follows European Union guidelines, although there is no available evidence of how these guidelines are implemented. [1] The EU guidelines detail the shared responsibilities between the public and private sectors in the event of a zoonotic outbreak, by placing the investigation of outbreaks under the control of the government central veterinary authority, which must take on implementation and management of zoonotic outbreak programmes and establish the roles and responsibilities of the public and private sectors. [2] However, the exact form by which the central veterinary authority manages the collaboration between the public and private sectors is to be left to the EU Member States. [2] There is no publicly available evidence of this mechanism for Belgium from the Ministry of Health, the Ministry of Agriculture, the Federal Public Health Service, the Research Federation, or the Institute of Public Health. [3, 4, 5, 6, 7, 8]

[1] Federal agency for food chain safety (Agence fédérale pour la sécurité de la chaîne alimentaire) (AFSCA). 31 August 2018. "Laboratories (Laboratoires)." [<http://www.afsca.be/professionnels/laboratoires/>]. Accessed 13 November 2020

[2] European Union: European Court of Auditors. 2016. "Eradication, control and monitoring programmes to contain animal diseases". [https://www.eca.europa.eu/Lists/ECADocuments/SR16_06/SR_ANIMAL_DISEASES_EN.pdf]. Accessed 13 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[6] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 29 November 2020

[7] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 29 November 2020

[8] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>]. Accessed 29 November 2020

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Belgium has in place a record of the facilities in which especially dangerous pathogens are stored or processed. Although there is evidence of inventories at each facility, there is insufficient evidence of a national-level inventory. According to the WHO Joint External Evaluation for Belgium, conducted in June 2017, "There is active monitoring and maintenance of an updated record and inventory of pathogens within facilities that store or process dangerous pathogens and toxins." [1] These records are kept by the Regions themselves rather than at the federal level, but the Belgian Biosafety Server (BBS), an official body that provides scientific support to federal and regional authorities and is part of the Belgian Biosafety Advisory Council, acts as an overarching technical expert for the Regions and is involved in the approval procedure for all laboratories applying to work with dangerous pathogens and toxins. [2] Neither the Ministry of Health, the Ministry of Environment, the Ministry of Defence, nor the Belgian Science Policy, make any mention of a record of facilities working with or storing such pathogens. [3, 4, 5, 6] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of a record of the facilities in which especially dangerous pathogens are stored or processed. [7, 8] The VERTIC database makes no mention of a record of the facilities in which especially dangerous pathogens are stored or processed, and neither does the Ministry of Agriculture. [9, 10, 11]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Belgian Biosafety Server. 2018. "Contained use of GMOs and/or pathogenic organisms: Notification procedures". [<https://www.biosafety.be/content/contained-use-gmos-andor-pathogenic-organisms-notification-procedures>]. Accessed 13 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[4] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[5] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020

[6] Belgian Science Policy. 2018. "Belgian Science Policy". [http://www.belspo.be/belspo/index_fr.stm]. Accessed 13 November 2020

[7] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou de toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020

[8] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou de toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020

[9] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

[10] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[11] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of legislation in Belgium addressing the specific issues of physical containment of dangerous pathogens or toxins, operation practices, failure reporting systems or cybersecurity. No mention is made of such legislation by the Federal Public Service Health, Food Chain Safety, and Environment; by the Ministry of Defence or the Ministry of Agriculture; or by the Scientific Institute of Public Health, the Belgian Science Policy, or the Belgian Biosafety Server. [1, 2, 3, 4, 5, 6, 7, 8] The WHO Joint External Evaluation for Belgium, conducted in June 2017, also does not give any information on biosecurity legislation addressing physical containment of pathogens, practices, failure reporting systems, or cybersecurity. [9] Belgium only has one law specifically addressing biosecurity, the Law approving the Convention for the prohibition of the development, the manufacture, and the storage of bacteriological (biological) or toxic weapons and for their destruction, and this merely states that it is forbidden to manufacture, stock, buy, store, keep, or transfer dangerous pathogens or toxins, that any such biological agents will be destroyed or confiscated, and that perpetrators will be fined and/or receive prison time. [10, 11] There is also no mention of physical containment, operation practices, failure reporting systems, or cybersecurity of facilities, in the Royal Decree concerning the protection of employees against risks linked to exposure to biological agents at work. [12] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of specific issues of physical containment of dangerous pathogens or toxins, operation practices, failure reporting systems or cybersecurity. [13, 14] The VERTIC database makes no mention of specific issues of physical containment of dangerous pathogens or toxins. [15]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020

[4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[6] Scientific Institute of Public Health (WIV-ISP). "About Sciensano". [<https://www.sciensano.be/en/about-sciensano>]. Accessed 13 November 2020

[7] Belgian Science Policy. 2018. "Belgian Science Policy". [http://www.belspo.be/belspo/index_fr.stm]. Accessed 13 November 2020

[8] Belgian Biosafety Server. 2018. "Biosafety (Biosûreté)". [<https://www.biosecurite.be/content/biosurete>]. Accessed 13 November 2020

[9] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[10] Vertic. "BWC Legislation Database". [<http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/biological-weapons-and-materials/bwc-legislation-database/b.php>]. Accessed 13 November 2020

[11] Social Affairs, Public Health, and Environment. Law 1978071001, 6 July 1979. "Law approving the Convention for the prohibition of the development, the manufacture, and the storage of bacteriological (biological) or toxic weapons and for their destruction, drawn up in London, Moscow, and Washington on the 10th of April 1972 (Loi portant approbation de la Convention sur l'interdiction de la mise au point, de la fabrication et du stockage des armes bactériologiques (biologiques) ou à toxines et sur leur destruction, faite à Londres, Moscou et Washington le 10 avril 1972)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Law_BWC_1979_FR.pdf]. Accessed 13 November 2020

[12] Employment and Work. Law 1999012405, 29 April 1999. "Royal decree modifying the royal decree of 4 August 1996 concerning the protection of employees against risks linked to exposure to biological agents at work (Arrêté royal modifiant l'arrêté royal du 4 août 1996 concernant la protection des travailleurs contre les risques liés à l'exposition à des agents biologiques au travail)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_Protection_Workers_1999_FR.pdf].

Accessed 13 November 2020

[13] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou à toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020

[14] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou à toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020

[15] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Belgium has an agency responsible for enforcing biosecurity legislation or regulations. No evidence of such an agency was found within the Federal Public Service Health, Food Chain Safety, and Environment, the Ministry of Defence or the Ministry of Agriculture, or within the Scientific Institute of Public Health, the Belgian Science Policy, or the Belgian Biosafety Server. [1, 2, 3, 4, 5, 6, 7, 8] There is also no mention of the existence of such a body in the World Health Organisation's (WHO) Joint External Evaluation report for Belgium, completed in June 2017, either. [9] Belgium only has one law on biosecurity, the Law approving the Convention for the prohibition of the development, the manufacture, and the storage of bacteriological (biological) or toxic weapons and for their destruction, and this does not specify any entity responsible for enforcing biosecurity. [10, 11] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of an agency responsible for enforcing biosecurity legislation or regulations. [12, 13] The VERTIC database makes no mention of an agency responsible for enforcing biosecurity legislation or regulations. [14]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13

November 2020

[4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries".

[<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[6] Scientific Institute of Public Health (WIV-ISP). "About Sciensano". [<https://www.sciensano.be/en/about-sciensano>]. Accessed 13 November 2020

[7] Belgian Science Policy. 2018. "Belgian Science Policy". [http://www.belspo.be/belspo/index_fr.stm]. Accessed 13 November 2020

[8] Belgian Biosafety Server. 2018. "Biosafety (Biosûreté)". [<https://www.biosecurite.be/content/biosurete>]. Accessed 13 November 2020

[9] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[10] Vertic. "BWC Legislation Database". [<http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/biological-weapons-and-materials/bwc-legislation-database/b.php>]. Accessed 13 November 2020

[11] Social Affairs, Public Health, and Environment. Law 1978071001, 6 July 1979. "Law approving the Convention for the prohibition of the development, the manufacture, and the storage of bacteriological (biological) or toxic weapons and for their destruction, drawn up in London, Moscow, and Washington on the 10th of April 1972 (Loi portant approbation de la Convention sur l'interdiction de la mise au point, de la fabrication et du stockage des armes bactériologiques (biologiques) ou à toxines et sur leur destruction, faite à Londres, Moscou et Washington le 10 avril 1972)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Law_BWC_1979_FR.pdf]. Accessed 13 November 2020

[12] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou à toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020

[13] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou à toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020

[14] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.3.1d

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Belgium has taken steps to consolidate its inventories of dangerous pathogens or toxins into a minimum number of facilities. According to the WHO Joint External Evaluation for Belgium, completed in June 2017, dangerous pathogens and toxins in Belgium are kept in a minimum number of facilities. [1] However, there is no evidence from the Federal Public Service (FPS) Health, Food Chain Safety and Environment (which comprises the Ministry of Health and the Environment, the Ministry of Agriculture, the Ministry of Defence, or the Scientific Institute of Public Health (WIV-ISP)), that Belgium has actively restricted the number of facilities the dangerous pathogens or toxins are kept in. [2, 3, 4, 5, 6, 7] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention;

however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of Belgium taking steps to consolidate its inventories of dangerous pathogens or toxins into a minimum number of facilities. [8, 9] The VERTIC database makes no mention of consolidation of inventories of dangerous pathogens or toxins into a minimum number of facilities. [10]

- [1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020
- [2] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020
- [3] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020
- [4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020
- [5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020
- [6] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020
- [7] Scientific Institute of Public Health (WIV-ISP). "Experimental Centre". [<https://www.sciensano.be/en/about-sciensano/sciensanos-organogram/coordination-veterinary-activities/experimental-centre>]. Accessed 13 November 2020
- [8] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020
- [9] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020
- [10] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.3.1e

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

Yes = 1, No = 0

Current Year Score: 1

There is publicly available evidence that Belgium has in-country capacity to conduct polymerase chain reaction (PCR)-testing for both Ebola and anthrax. The Antwerp Institute of Tropical Medicine has the capacity to conduct PCR testing for the Ebola virus as per a study conducted in 2016 on a new type of PCR test for the Ebola virus. [1] A research team at the Catholic University Leuven (Katholieke Universiteit Leuven) has the capacity to conduct PCR testing for anthrax. [2]

- [1] Cnops L, Van den Eede P, Pettitt J, Heyndrickx L, De Smet B, Coppens S, Andries I, Pattery T, Van Hove L, Meersseman G, Van Den Herrewegen S, Vergauwe N, Thijs R, Jahrling PB, Nauwelaers D, Ariën KK. 2016. "Development, Evaluation, and Integration of a Quantitative Reverse-Transcription Polymerase Chain Reaction Diagnostic Test for Ebola Virus on a Molecular Diagnostics Platform." *Journal of Infectious Diseases* 214 (Supplement 3): S192-S202.

[<https://www.ncbi.nlm.nih.gov/pubmed/27247341>]. Accessed 13 November 2020

[2] Van den Enden E, Van Gompel A, and Van Esbroeck M. 2006. "Cutaneous Anthrax, Belgian Traveler." *Emerging Infectious Diseases* 12

[3] :523-525. [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3291463/>]. Accessed 13 November 2020

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that any biosecurity training is mandatory for personnel dealing with dangerous pathogens or toxins. The WHO Joint External Evaluation for Belgium, conducted in June 2017 states that Belgium has developed biosecurity awareness-raising courses, and encourages the use of a standardised biosecurity tool. [1] However, the implementation of these biosecurity measures is limited and not legally binding, and there is no evidence of any oversight mechanism in the Royal decree concerning the protection of workers against risks due to exposure to biological agents at the workplace. [2] A protocol for a training programme exists, with a standard curriculum and a "training of trainers" programme, and is shared among facilities storing or working with dangerous pathogens and toxins, and there is evidence that biosafety training programmes are regularly improved to include biosecurity measures, but these are not mandatory by the Royal decree concerning the protection of workers, nor enforced at a federal level by the Cooperation agreement between the Federal State and the Regions concerning the administrative and scientific coordination in matters concerning biosafety. [2, 3] There is no evidence that the Ministry of Health, the Ministry of Agriculture, the Ministry of Defence, the Federal Public Health Service, or the Research Federation provide such courses. [4, 5, 6, 7, 8, 9] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of any biosecurity training is mandatory for personnel dealing with dangerous pathogens or toxins. [10, 11] The VERTIC database makes no mention of any biosecurity training. [12]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Employment and work (Emploi et travail). Law 1999012405, 7 October 1999. "Royal decree modifying the royal decree of the 4th of August 1996 concerning the protection of workers against risks due to exposure to biological agents at the workplace (Arrêté royal modifiant l'arrêté royal du 4 août 1996 concernant la protection des travailleurs contre les risques liés à l'exposition à des agents biologiques au travail)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_Protection_Workers_1999_FR.pdf]. Accessed 13 November 2020

[3] Social affairs, public health, and environment (Affaires sociales, santé publique, et environnement). Law 1998A22245, 14 July 1998. "Cooperation agreement between the federal State and the Regions concerning the administrative and scientific coordination in matters concerning biosafety (Accord de coopération entre l'Etat fédéral et les Régions relatif à la coordination administrative et scientifique en matière de biosécurité)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Accord_Cooperation_Biosecurite_1997_FR.pdf]. Accessed 13 November 2020

- [4] Belgian Federal Public Service Ministry of Health (Service Public Fédéral Belge Ministère de la Santé). 2018. "Epidemics (Epidémies)". [https://www.belgium.be/fr/sante/risques_pour_la_sante/epidemies]. Accessed 13 November 2020
- [5] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020
- [6] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020
- [7] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020
- [8] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 13 November 2020
- [9] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 13 November 2020
- [10] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020
- [11] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020
- [12] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

Regulations or licensing conditions in Belgium do not 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. There is no publicly available evidence on this from the websites of the Federal Public Service (FPS) Health, Food Chain Safety and Environment (which comprises the Ministries of Health and the Environment), the Ministry of Defence and the Ministry of Agriculture, nor the Institute of Public Health (WIV-ISP), the Belgian Science Policy nor the Belgian Biosafety Server. [1, 2, 3, 4, 5, 6, 7, 8] The WHO Joint External Evaluation for Belgium, conducted in June 2017, also does not give any information on mandatory checks for personnel dealing with dangerous pathogens. [9] The Royal decree concerning the protection of workers against risks due to exposure to biological agents at the workplace, and the Law on the administrative and scientific coordination in matters concerning biosafety, also make no mention of any drug testing, background checks, or psychological or mental fitness checks that personnel dealing with dangerous pathogens must undergo. [10, 11] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the

storage and destruction of, biological weapons, and no mention is made of background checks for personnel with access to especially dangerous pathogens. [12, 13] The VERTIC database makes no mention of background checks for personnel with access to especially dangerous pathogens. [14]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020

[4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[6] Scientific Institute of Public Health (WIV-ISP). "About Sciensano". [<https://www.sciensano.be/en/about-sciensano>]. Accessed 13 November 2020

[7] Belgian Science Policy. 2018. "Belgian Science Policy". [http://www.belspo.be/belspo/index_fr.stm]. Accessed 13 November 2020

[8] Belgian Biosafety Server. 2018. "Biosafety (Biosûreté)". [<https://www.biosecurite.be/content/biosurete>]. Accessed 13 November 2020

[9] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[10] Employment and work (Emploi et travail). Law 1999012405, 7 October 1999. "Royal decree modifying the royal decree of the 4th of August 1996 concerning the protection of workers against risks due to exposure to biological agents at the workplace (Arrêté royal modifiant l'arrêté royal du 4 août 1996 concernant la protection des travailleurs contre les risques liés à l'exposition à des agents biologiques au travail)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_Protection_Workers_1999_FR.pdf]. Accessed 13 November 2020

[11] Social affairs, public health, and environment (Affaires sociales, santé publique, et environnement). Law 1998A22245, 14 July 1998. "Cooperation agreement between the federal State and the Regions concerning the administrative and scientific coordination in matters concerning biosafety (Accord de coopération entre l'Etat fédéral et les Régions relatif à la coordination administrative et scientifique en matière de biosécurité)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Accord_Cooperation_Biosecurite_1997_FR.pdf]. Accessed 13 November 2020

[12] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020

[13] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020

[14] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.3.4 Transportation security

1.3.4a

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

Yes = 1 , No = 0

Current Year Score: 1

The Belgian Biosafety Server (BBS) has detailed and explicit information on national and international transport regulations of infectious substances, including Category A and Category B substances, as well as on the responsibilities of the sender and transporter. The sender must follow explicit guidelines as to packaging (involving triple packaging so as to withstand shocks and blasts), marking and labelling, while the transporter must fill out a declaration and documents meeting specific criteria.

[1] According to the Belgian Biosafety Server, a website maintained by Sciensano, the national public health institute of Belgium, the transport of "(potentially) infectious materials is subject to strict national and international regulations." [1] Transport of dangerous goods of Category A and Category B out of Belgium must comply with the requirements of the international agreements, and within EU member states it must comply with EU Directive 2008/68/EC, although this law makes no mention of infectious substances in the case of Belgium. [1,2] Within Belgium, according to the BBS, the Federal Public Service Mobility and Transport is responsible for the rail, boat, air and other transport, including road. [1]

[1] Belgian Biosafety Server. 2018. "Safety measures for the transport of GMOs and/or pathogens".

[<https://www.biosafety.be/content/safety-measures-transport-gmos-andor-pathogens>]. Accessed 13 November 2020

[2] Access to European Union Law. "Document 32008L0068 - Directive 2008/68/EC of the European Parliament and of the Council of 24 September 2008 on the inland transport of dangerous goods". [<https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32008L0068>]. Accessed 13 November 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

Belgium has in place regulations to oversee the cross-border transfer and end-user screening of especially dangerous pathogens. The Catholic University of Leuven published Guidelines for researchers on dual use and misuse of research, which describe the end use, and end-user, screening that must happen for all cross-border sending of dangerous pathogens, in accordance with Article 4 of Council Regulation 428/2009, and there is no evidence to suggest these guidelines apply only to universities. [1] This Article states that all cross-border transfer of dangerous pathogens requires an authorisation based on information provided about the recipient, and that a special authorisation is required for the transport of dangerous pathogens to certain countries upon which an embargo or restrictions have been placed. [2] To comply with these regulations, the Flanders Department of Foreign Affairs (FDFA) has made available a form to fill out as an end-use certificate. [3] Finally, the European Union "Information on Measures Adopted by Member States in conformity with Articles 5, 6, 8, 9, 10, 17, and 22 of Council Regulations (EC) N° 428/2009 setting up a Community Regime for the control of exports, transfer, brokering, and transit of dual-use items" states that in Belgium, all export, transit, and transfer of potential dual-use items and technology requires an authorisation, though it is not specified which authority must sign this authorisation. [4, 5]

[1] Catholic University Leuven (Katholieke Universiteit Leuven). October 2017. "Guidelines for researchers on dual use and misuse of research". [<https://www.kuleuven.be/english/research/ethics/Brochure-dual-use>]. Accessed 16 September 2018

[2] Council of the European Union. 5 May 2009. "Council Regulation (EC) N° 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/PDF/?uri=CELEX:32009R0428&from=EN>]. Accessed 19 October 2018

[3] Flanders Department of Foreign Affairs (FDFA). "End-Use Certificate for Annex II items (EU Reg. 267/2012)". [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=6&cad=rja&uact=8&ved=2ahUKEwi38tPB973dAhUGiwiKHfd0A2oQFjAFegQIBRAC&url=https%3A%2F%2Fwww.fdfa.be%2Fsites%2Fdefault%2Ffiles%2Fatoms%2Ffiles%2FEindgebruikercertificaat_Iran_Bijlage%2520II_Word-versie_EN_0.docx&usq=AOvVaw3lxhflfbQ_8jgoCsOznwpA]. Accessed 15 September 2018.

[4] Foreign affairs, foreign commerce, development cooperation (Affaires étrangères, commerce extérieur, coopération au développement). Law 1993015050, 6 April 1993. "Royal decree regulating the import, export, and transport of weapons, ammunition, and material specifically designed [for military or marshalling use] and of the appertaining technology (Arrêté royal réglementant l'importation, l'exportation et le transit d'armes, de munitions et de matériel devant servir spécialement [à un usage militaire ou de maintien de l'ordre] et de la technologie y afférente)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_Import_Export_Arms_1993_FR.pdf]. Accessed 4 October 2018.

[5] Official Journal of the European Union. 20 August 2016. "Information on measures adopted by Member States in conformity with Articles 5, 6, 8, 9, 10, 17 and 22 of Council Regulation (EC) No 428/2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items".

[http://trade.ec.europa.eu/doclib/docs/2016/august/tradoc_154880.pdf]. Accessed 13 November 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

Belgium has implemented legislation concerning biosafety as well as specific legislation ensuring the welfare of persons working with hazardous materials as of 1998. The WHO Joint External Evaluation report for Belgium, conducted in June 2017, notes that this legislation is well established and functional. [1] Belgium's foundational law on biosafety, the Cooperation agreement between the federal State and the Regions concerning the administrative and scientific coordination in matters concerning biosafety, covers the responsibilities of the federal and the regional governments and of the national scientific advisory committee, the Belgian Biosafety Server, in matters of biosafety. It also sets out legislation regarding the responsibilities of these entities with respect to GMOs as well as pathogens that might pose a public health risk. [2] The law on the protection of employees working with biological materials, the Royal decree on the code concerning well-being at the workplace involving biological agents, covers the responsibility of the employer as well as the work physician in terms of exposure prevention and health protection, health surveillance and vaccinations, risk analysis, and reporting of exposure or accidents. [3]

[1] World Health Organisation (WHO). 17-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Social affairs, public health, and environment (Affaires sociales, santé publique, et environnement). Law 1998A22245, 14 July 1998. "Cooperation agreement between the federal State and the Regions concerning the administrative and scientific coordination in matters concerning biosafety (Accord de coopération entre l'Etat fédéral et les Régions relatif à la coordination administrative et scientifique en matière de biosécurité)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Accord_Cooperation_Biosecurite_1997_FR.pdf].

Accessed 13 November 2020

[3] Federal Public Service of Employment, Work, and Social Consultation (Service public fédéral emploi, travail et consultation sociale). Law C - 2017/11426, 28 April 2017. "Royal decree establishing Book VII: Biological agents of the code concerning well-being at the workplace (Arrêté royal établissant le livre VII : Agents biologiques du code du bien-être au travail)".

[[http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl?=&sql=\(text+contains+\(%27%27\)\)&rech=1&language=fr&tri=dd+AS+RANK&numero=1&table_name=loi&F=&cn=1996080407&caller=image_a1&fromtab=loi&la=F&pdf_page=100&pdf_file=http://www.ejustice.just.fgov.be/mopdf/2017/06/02_1.pdf](http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl?=&sql=(text+contains+(%27%27))&rech=1&language=fr&tri=dd+AS+RANK&numero=1&table_name=loi&F=&cn=1996080407&caller=image_a1&fromtab=loi&la=F&pdf_page=100&pdf_file=http://www.ejustice.just.fgov.be/mopdf/2017/06/02_1.pdf)]. Accessed 13 November 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

The responsibility for the enforcement of biosafety legislation or regulations in Belgium is not centralised at the Federal level, but is instead relegated to the different Belgian Regions. This means that while the agencies responsible for enforcing biosafety are not nationally coordinated, such agencies do exist. [1] In addition, two bodies were set up at the national level in 1997 and 1995 to advise national and regional authorities about questions relating to biosafety and dangerous pathogens. The first is the Biosafety Advisory Council (BAC), whose role is to advise Belgian authorities on the biosafety aspect of applications for clinical and field trials and of placing products containing Genetically Modified Organisms (GMOs) on the market. The second is the Biosafety and Biotechnology Unit ("Service of Biosafety and Biotechnology" or SBB), which, as a unit of the national Institute of Public Health, is responsible for advising the government and the Regions on the scientific side of biosafety. [2, 3, 4] In addition, the Federal Council for Scientific Policy ("Conseil Fédéral de la Politique Scientifique" or CFPS) advises all scientific endeavours, and thus collaborates with the SBB to advise in matters of biosafety. [5]

[1] Belgian Biosafety Server. 2018. "Belgian Regulatory Framework on biosafety". [<https://www.biosafety.be/content/belgian-regulatory-framework-biosafety>]. Accessed 13 November 2020

[2] Belgian Biosafety Server. 2018. "Biosafety Advisory Council - Missions and functioning".

[<https://www.biosafety.be/content/biosafety-advisory-council-missions-and-functioning>]. Accessed 13 November 2020

[3] Belgian Biosafety Server. 2018. "Service Biosafety and Biotechnology (SBB): A permanent centre of expertise in biosafety".

[<https://www.biosafety.be/content/sbb-permanent-centre-expertise-biosafety>]. Accessed 13 November 2020

[4] World Health Organisation (WHO). 17-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 13 November 2020

[5] Belgian Science Policy (BELSPO). 2018. "Missions". [http://www.belspo.be/belspo/council/act_fr.stm]. Accessed 13 November 2020

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1, No = 0

Current Year Score: 1

Belgium requires biosafety training, using a standardised, required approach for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. According to the WHO Joint External Evaluation for Belgium, completed in June 2017, Belgium has in place a training programme with a common curriculum and a train-the-trainer programme. [1] Law C - 2017/11426 states that employers are obligated to provide adequate training for personnel exposed to pathogens or hazardous materials, and that this training must cover awareness of risks, prevention measures and precautions (including any vaccinations), as well as procedures for reporting, intervening, and follow-up in case of incidents, hygiene and protective clothing and measures in the workplace, and awareness of all protocols to follow. [2] The law sets out these measures for laboratories, production and animal facilities, and hospitals. The Service Biosafety and Biotechnology (BSS) unit of the national Scientific Institute of Public Health is also able to provide guidance and advice on specific questions. [1]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Federal Public Service of Employment, Work, and Social Consultation (Service public fédéral emploi, travail et consultation sociale). Law C - 2017/11426, 28 April 2017. "Royal decree establishing Book VII: Biological agents of the code concerning well-being at the workplace (Arrêté royal établissant le livre VII : Agents biologiques du code du bien-être au travail)". [[http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl?=&sql=\(text+contains+\(%27%27\)\)&rech=1&language=fr&tri=dd+AS+RANK&numero=1&table_name=loi&F=&cn=1996080407&caller=image_a1&fromtab=loi&la=F&pdf_page=100&pdf_file=http://www.ejustice.just.fgov.be/mopdf/2017/06/02_1.pdf](http://www.ejustice.just.fgov.be/cgi_loi/loi_a.pl?=&sql=(text+contains+(%27%27))&rech=1&language=fr&tri=dd+AS+RANK&numero=1&table_name=loi&F=&cn=1996080407&caller=image_a1&fromtab=loi&la=F&pdf_page=100&pdf_file=http://www.ejustice.just.fgov.be/mopdf/2017/06/02_1.pdf)]. Accessed 13 November 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 neither of an assessment having been conducted recently nor of a protocol for regular assessments of on-going dual-use research. However, the Institute of Public Health mandates that laboratories wishing to conduct research on or with dangerous pathogens must apply for a permit for such research, and the Biosecurity and Biotechnology Service ("Service Biosécurité et Biotechnologie" or SBB) will then propose a risk classification and appropriate biosecurity measures for the laboratories to follow. [1, 2, 3] Regular inspections of techniques and dangerous substances themselves are carried out as mandated by the Ministry of Environment, the Ministry of Health, and the Flanders Research

Institute for Agriculture, Fisheries, and Food, but these inspections do not appear to extend to any formal policy for assessments of on-going dual use research. [4, 5, 6, 7] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of an assessment having been conducted recently nor of a protocol for regular assessments of on-going dual-use research. [8, 9] The VERTIC database makes no mention of an assessment having been conducted recently nor of a protocol for regular assessments of on-going dual-use research. [10]

[1] The Scientific Institute of Public Health (WIV-ISP), Belgian focal point for biosecurity (Point focal belge pour la biosécurité). 2010. "1990-2010: 20 years of evaluating risks of GMOs and pathogens (1990-2010 : 20 années d'évaluation des risques des OGMs et pathogènes)". [https://www.biosafety.be/sites/default/files/2010_breyer_et_al_livre_20ansbiosecurite_fr.pdf] Accessed 13 November 2020

[2] Belgian Biosafety Server. 2018. "Implementation in Belgium of legislation concerning confined use - History (Implémentation en Belgique de la législation en matière d'utilisation confinée - Historique)". [<https://www.biosecurite.be/content/implementation-en-belgique-de-la-legislation-en-matiere-dutilisation-confinnee-historique>]. Accessed 13 November 2020

[3] Belgian Science Policy. 2018. "Missions". [http://www.belspo.be/belspo/council/act_fr.stm]. Accessed 13 November 2020

[4] Federal Public Service (FPS) for Health, Food Chain Safety, and Environment. 12 January 2016. "Controls required by the REACH legislation". [<https://www.health.belgium.be/en/controls-required-reach-legislation>]. Accessed 13 November 2020

[5] Federal Public Service (FPS) for Health, Food Chain Safety, and Environment. 12 January 2016. "Chemical products: caution is called for". [<https://www.health.belgium.be/en/environment/chemical-products-caution-called>]. Accessed 13 November 2020

[6] Federal Public Service (FPS) for Health, Food Chain Safety, and Environment. [<https://www.health.belgium.be/>]. Accessed 13 November 2020

[7] Research Institute for Agriculture, Fisheries, and Food. "Inspection and Certification". [<https://www.ilvo.vlaanderen.be/language/en-US/EN/Services-and-Products/Inspection-and-Certification.aspx#.W7dhe1JoQWo>]. Accessed 13 November 2020

[8] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020

[9] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020

[10] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.5.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence of a national policy requiring oversight of dual use research, although certain laboratories and universities have developed their own guidelines on dual use research. [1, 2] A specific law exists, the Royal

decree regulating the voluntary dissemination in the environment and the placing on the market of genetically modified organisms or products containing GMOs (Arrêté royal réglementant la dissémination volontaire dans l'environnement ainsi que la mise sur le marché d'organismes génétiquement modifiés ou de produits en contenant), stating that in the case of research on Genetically Modified Organisms (GMOs), the appropriate authorities must submit a written report of their research activities to the regional Minister within the first trimester of each year. [3] However, no such legislation was found for potential dual use research in general in the legislation on biological weapons and materials, and no mention is made of such legislation in the Federal Public Service (FPS) Health, Food Chain Safety and Environment (which comprises the Ministry of Health and the Ministry of the Environment, nor in the Belgian Science Policy or the Research Institutes for Agriculture, Fisheries, and Food. [4, 5, 6, 7, 8] There is also no evidence of a national policy requiring oversight of dual use research from the Federal Public Service Health, Food Chain Safety, and Environment, from the Ministry of Defence, from the Ministry of Agriculture, or from the Scientific Institute of Public Health. [9, 10, 11, 12, 13, 14] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of a national policy requiring oversight of dual use research. [15, 16] The VERTIC database makes no mention of a national policy requiring oversight of dual use research. [17]

[1] Piers D Millett, Principal, Biosecure Ltd. 17 January 2017. "Gaps in the International Governance of Dual-Use Research of Concern". [https://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_176434.pdf]. Accessed 13 November 2020

[2] Catholic University Leuven (Katholieke Universiteit Leuven). October 2017. "Guidelines for researchers on dual use and misuse of research". [<https://www.kuleuven.be/english/research/ethics/Brochure-dual-use>]. Accessed 13 November 2020

[3] Public Federal Service for Social Security. Law C ? 2005/22132, 21 February 2005. "Royal decree regulating the voluntary dissemination in the environment and the placing on the market of genetically modified organisms or products containing GMOs (Arrêté royal réglementant la dissémination volontaire dans l'environnement ainsi que la mise sur le marché d'organismes génétiquement modifiés ou de produits en contenant)".

[http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_GMOs_2005.pdf]. Accessed 13 November 2020

[4] Vertic. "BWC Legislation Database - Belgium". [<http://www.vertic.org/pages/homepage/programmes/national-implementation-measures/biological-weapons-and-materials/bwc-legislation-database/b.php>]. Accessed 13 November 2020

[5] Public Health, the Safety of the Food Chain and the Environment. "Health: Publications and Research".

[<https://www.health.belgium.be/en/publications-and-research>]. Accessed 13 November 2020

[6] Public Health, the Safety of the Food Chain and the Environment. 22 August 2018. "Health - National procedure".

[<https://www.health.belgium.be/en/national-procedure>]. Accessed 13 November 2020

[7] Belgian Science Policy. 2018. "Missions". [http://www.belspo.be/belspo/council/act_fr.stm]. Accessed 13 November 2020

[8] Research Institute for Agriculture, Fisheries, and Food. "Inspection and Certification".

[<https://www.ilvo.vlaanderen.be/language/en-US/EN/Services-and-Products/Inspection-and-Certification.aspx#.W7dhe1JoQWo>]. Accessed 13 November 2020

[9] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[10] Federal Public Service Health, Food Chain Safety, and Environment. "Environment".

[<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[11] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020

[12] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries".

[<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[13] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[14] Scientific Institute of Public Health (WIV-ISP). "About Sciensano". [<https://www.sciensano.be/en/about-sciensano>]. Accessed 13 November 2020

[15] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou de toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020

[16] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou de toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020

[17] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Belgium has a designated agency responsible for overseeing dual-use research or research on dangerous pathogens. There is no evidence such an agency exists from the Federal Public Service Health, Food Chain Safety, and Environment, from the Ministry of Defence, from the Ministry of Agriculture, or from the Scientific Institute of Public Health. [1, 2, 3, 4, 5, 6] A 2017 report by Biosecure (a firm specialising in biosecurity), "Gaps in the International Governance of Dual-Use Research of Concern", points out that Belgium did not reply to questions regarding the oversight of dual-use research. [7] The Catholic University of Leuven published Guidelines for researchers on dual use and misuse of research in 2017, and while the responsibilities of the researcher and the Universities or Research Institutions are discussed, no mention of an agency responsible for overseeing dual-use research. [8] The Belgian Science Policy council advises on and oversees research as a whole aided by the Institute of Public Health, but there is no specific mention of research on dangerous pathogens. [9, 10] The Federal Environmental Inspection (part of the Federal Public Service for Public Health, Food Chain Safety and Environment) is responsible for inspecting chemicals, but no mention is made of dangerous or infectious pathogens. [10] Finally, the law on Genetically Modified Organisms (GMOs) requires any institute working with GMOs to submit a written report of their research activities once a year to the regional Minister, but this legislation applies only to GMOs. [11] Belgium has submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of a designated agency responsible for overseeing dual-use research or research on dangerous pathogens. [12, 13] The VERTIC database makes no mention of a designated agency responsible for overseeing dual-use research or research on dangerous pathogens. [14]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 13 November 2020

[4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

- [5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020
- [6] The Scientific Institute of Public Health (WIV-ISP), Belgian focal point for biosecurity (Point focal belge pour la biosécurité). 2010. "1990-2010: 20 years of evaluating risks of GMOs and pathogens (1990-2010 : 20 années d'évaluation des risques des OGMs et pathogènes)". [https://www.biosafety.be/sites/default/files/2010_breyer_etal_livre_20ansbiosecurite_fr.pdf] Accessed 13 November 2020
- [7] Piers D Millett, Principal, Biosecure Ltd. 17 January 2017. "Gaps in the International Governance of Dual-Use Research of Concern". [https://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_176434.pdf]. Accessed 13 November 2020
- [8] Catholic University Leuven (Katholieke Universiteit Leuven). October 2017. "Guidelines for researchers on dual use and misuse of research". [<https://www.kuleuven.be/english/research/ethics/Brochure-dual-use>]. Accessed 13 November 2020
- [9] Belgian Science Policy. 2018. "Missions". [http://www.belspo.be/belspo/council/act_fr.stm]. Accessed 13 November 2020
- [10] Federal Public Service (FPS) for Health, Food Chain Safety, and Environment. 12 January 2016. "Controls required by the REACH legislation". [<https://www.health.belgium.be/en/controls-required-reach-legislation>]. Accessed 13 November 2020
- [11] Public Federal Service for Social Security. Law C ? 2005/22132, 21 February 2005. "Royal decree regulating the voluntary dissemination in the environment and the placing on the market of genetically modified organisms or products containing GMOs (Arrêté royal réglementant la dissémination volontaire dans l'environnement ainsi que la mise sur le marché d'organismes génétiquement modifiés ou de produits en contenant)". [http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_GMOs_2005.pdf]. Accessed 13 November 2020
- [12] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020
- [13] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020
- [14] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Belgium has in place legislation and/or regulation requiring the screening of synthesized DNA against lists of known pathogens and toxins before it is sold. Belgium has in place regulations that comply with EU regulations on synthetic biology (SB) and genetically modified micro-organisms (GMOs), which state that all products or research containing synthesised DNA or GMOs must be produced and kept in accordance with national and/or European standards, and must be submitted to rigorous checking before selling, consumption, or dissemination in the environment. [1, 2] In addition, regulations exist that also legislate for the placing of GMOs on the market. [3] However, none of these regulations mention screening of synthesized DNA against lists of known pathogens and toxins before it is sold. Belgium has

submitted Confidence Building Measures for 2019 and 2020 under the Biological Weapons Convention; however, these reports mention only the measures dictating the bans on, and the storage and destruction of, biological weapons, and no mention is made of regulation requiring the screening of synthesized DNA before it is sold. [4, 5] The VERTIC database makes no mention of regulation requiring the screening of synthesized DNA before it is sold. [6]

- [1] Belgian Biosafety Server. 2020. "Implementation of the contained use legislation in Belgium - A historical perspective". [<https://www.biosafety.be/content/implementation-contained-use-legislation-belgium-historical-perspective>]. Accessed 13 November 2020
- [2] Belgian Biosafety Server. 2018. "EU Regulatory Framework: Contained use of genetically modified micro-organisms". [<https://www.biosafety.be/content/eu-regulatory-framework-contained-use-genetically-modified-micro-organisms>]. Accessed 13 November 2020
- [3] Public Federal Service for Social Security. Law C ? 2005/22132, 21 February 2005. "Royal decree regulating the voluntary dissemination in the environment and the placing on the market of genetically modified organisms or products containing GMOs (Arrêté royal réglementant la dissémination volontaire dans l'environnement ainsi que la mise sur le marché d'organismes génétiquement modifiés ou de produits en contenant)". [http://www.vertic.org/media/National%20Legislation/Belgium/BE_Royal_Decree_GMOs_2005.pdf]. Accessed 13 November 2020
- [4] BWC Electronic Confidence Building Measures Portal. 4 April 2019. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_belgium_public.pdf]. Accessed 29 November 2020
- [5] BWC Electronic Confidence Building Measures Portal. April 2020. "Convention on the ban on the development and the storage of biological or toxin-based weapons and on their destruction (Convention sur l'interdiction de la mise au point, de la fabrication, et du stockage d'armes bactériologiques (biologiques) ou a toxines et sur leur destruction)". [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_belgium_public.pdf]. Accessed 29 November 2020
- [6] VERTIC database. 2020. "Belgium" [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/b/>]. Accessed 29 November 2020

1.6 IMMUNIZATION

1.6.1 Vaccination rates

1.6.1a

Immunization rate (measles/MCV2)

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

Current Year Score: 1

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 1

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 2

Belgium's National laboratory System has the capacity to conduct diagnostic tests for 5 of the 10 WHO-defined core tests. The WHO Joint External Evaluation for Belgium, conducted in June 2017, verified that Belgium had in-country capacity to perform diagnostic testing with 5 out of the 10 WHO-defined core tests, for influenza, mycobacterium tuberculosis, Typhoid fever, Human Immunodeficiency Virus (HIV), and malaria. [1] The Scientific Institute of Public Health's National Reference Centres can conduct polymerase chain reaction (PCR) testing for influenza (the WHO has designated this the National Influenza Centre), microscopy for mycobacterium tuberculosis (TB), and bacterial culture for Salmonella typhi (Typhoid fever). [2, 3] The National Reference Laboratories, based at the Institute of Tropical Medicine Antwerp, can conduct serology for HIV, rapid diagnostic testing (RDT) for Plasmodium species (malaria). [4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] World Health Organisation (WHO). 2020. "National Influenza Centres - European Region of WHO". [http://www.who.int/influenza/gisrs_laboratory/national_influenza_centres/list/en/index3.html]. Accessed 13 November 2020

[3] The Scientific Institute of Public Health (WIV-ISP). 2018. "Reference Centers". [<http://bacterio.wiv-isp.be/missions>]. Accessed 13 November 2020

[4] Institute of Tropical Medicine Antwerp. 2020. "Reference Laboratories". [<https://www.itg.be/E/laboratories>]. Accessed 13 November 2020

2.1.1b

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

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

Current Year Score: 0

There is no evidence that Belgium has in place a national plan or strategy for conducting testing during a public health emergency. There is no evidence of such a plan from the Ministry of Health or the Ministry of Agriculture, nor from Federal Public Health Service, the Research Federation, or the Institute of Public Health. [1, 2, 3, 4, 5, 6]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[2] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[3] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

[6] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>]. Accessed 17 November 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

The National Reference Laboratories for all 5 pathogens that Belgium can test for are accredited. The Scientific Institute of Public Health laboratory that tests for Salmonella Typhi (typhoid fever) and Mycobacterium tuberculosis (TB) are accredited as ISO 15189 and ISO 17025:2005 (which covers testing and calibration performed using standard methods, non-standard methods, and laboratory-developed methods), and ISO 15189 respectively. [1] The National Reference Laboratory for Human Immunodeficiency Virus (HIV) is accredited as ISO 15187:2007 (which covers interfaces for programming and operation of robots) and ISO 17025:2005. [2] Whilst the reference laboratory for Plasmodium species (malaria) and tropical diseases, based at the Institut for Tropical Medicine Antwerp, is accredited, there is no evidence of this accreditation number. [3, 4, 5] Similarly, the World Health Organisation (WHO) approved laboratory for testing for Influenza is accredited, the accreditation number could not be found. [3, 6, 7]

[1] The Scientific Institute of Public Health (WIV-ISP). 2020. "Reference Centers". [<http://bacterio.wiv-isp.be/missions>]. Accessed 13 November 2020

- [2] Institute of Tropical Medicine Antwerp. 2020. "Reference Laboratory HIV/STD". [[https://pure.itg.be/en/organisations/referentielaboratorium-voor-hivsoa\(513224b8-6dd1-439b-856f-2515b53288f3\).html](https://pure.itg.be/en/organisations/referentielaboratorium-voor-hivsoa(513224b8-6dd1-439b-856f-2515b53288f3).html)]. Accessed 13 November 2020
- [3] Tembuyser L, Van Campenhout C, Blanckaert N, Dequeker EMC. 11 October 2016. "ISO 15189-accredited laboratories fulfill the JCI Hospital Accreditation Standard requirements for the use of referral laboratories: report of a consensus meeting." *Accreditation and Quality Assurance* 21 [6] : 425-431 [<https://link.springer.com/article/10.1007/s00769-016-1232-x>]. Accessed 13 November 2020
- [4] Institute of Tropical Medicine Antwerp. 2020. "Reference laboratories". [<https://www.itg.be/E/laboratories>]. Accessed 13 November 2020
- [5] The Scientific Institute of Public Health (WIV-ISP). 2020. "Reference laboratory (Laboratoire de référence)". [https://nrchm.wiv-isp.be/fr/centres_ref_lab/Plasmodium/default.aspx?View={4f27f052-f1b9-4325-853c-8d2a9a1fca3b}&SortField=LinkTitle&SortDir=Asc]. Accessed 13 November 2020
- [6] World Health Organisation (WHO). 2020. "National Influenza Centres". [http://www.who.int/influenza/gisrs_laboratory/national_influenza_centres/list/en/index3.html]. Accessed 13 November 2020
- [7] Scientific Institute of Public Health. "National Influenza Centre". [<http://www.iph.fgov.be/flu>]. Accessed 13 November 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

All Belgian laboratory activities have a centralised External Quality Assessment (EQA) programme, which is under the responsibility of the Institute of Public Health (WIV-ISP). [1,2] Participation in EQA is mandatory for all licensed laboratories in Belgium. [2] The EQA programme run by the Institute of Public Health consists of sending the same sample to all licensed laboratories, and analysing all the data together. This EQA is set up to fulfil three main criteria: define the reliability of the analyses performed by the laboratories, check the analytical methodology, and help the laboratories identify weaknesses and areas for improvement. While no mention is made explicitly of the National Reference Laboratories participating in the EQA programme, it is stated that "participation to EQA is mandatory for all licensed Belgian medical laboratories". [2] It is accredited according to ISO 17043. [1,2]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Institute for Public Health (WIV-ISP). "External Quality Assessment (EQA) for medical laboratories". [<https://www.sciensano.be/en/about-sciensano/sciensanos-organogram/quality-laboratories/external-quality-assessment>]. Accessed 13 November 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

Belgium has in place a nationwide specimen transport system for pathogens and GMOs. According to the WHO Joint External Evaluation for Belgium, completed in June 2017, Belgium has a "system is in place to transport specimens to national laboratories from at least 80% of intermediate level/districts within the country for advanced diagnostics". [1] Within-Belgium transport of biological specimens is assured by the postal system, and the preparation, packaging, and description conditions which much be fulfilled in order for the specimens to be transported safely are outlined in the law defining the postal system. [2] All laboratories must follow specimen transport conditions and plans as laid out by the Scientific Institute for Public Health, and sample transport conditions are checked and validated before laboratories may be licensed or accredited. [1] However, no evidence was found that the specimen transport plan has been made public, neither from the Ministries of Health or Environment, nor the Scientific Institute of Public Health itself. [3, 4, 5] International transport of specimens must comply with United Nations (UN) and World Health Organisation (WHO) regulations, in addition to which each mode of transport (air, road, rail, or boat) has specific regulations controlling shipment of dangerous goods. [6]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Federal Public Service of the Economy, SMEs, Middle Classes, and Energy. 27 April 2007. "Royal decree concerning the regulation of the postal service (Arrêté royal portant réglementation du service postal)". [http://www.etaamb.be/fr/arrete-royal-du-27-avril-2007_n2007011282.html]. Accessed 13 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[4] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 13 November 2020

[5] Scientific Institute of Public Health (WIV-ISP). "About Sciensano". [<https://www.sciensano.be/en/about-sciensano>]. Accessed 13 November 2020

[6] Belgian Biosafety Server. 2020. "Safety measures for the transport of GMOs and/or pathogens". [<https://www.biosafety.be/content/safety-measures-transport-gmos-andor-pathogens>]. Accessed 13 November 2020

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no evidence that Belgium has in place any plan to rapidly authorise or license laboratories rapidly to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. There is no information on laboratory authorisation to scale up testing during emergencies, nor on any fast-track measures, from the Ministry of Health or the Ministry of Agriculture, nor from the Federal Public Health Service, the Research Federation, or the Institute of Public Health. [1, 2, 3, 4, 5, 6]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

- [2] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [https://lv.vlaanderen.be/fr]. Accessed 29 November 2020
- [3] Wallonia Agriculture. "Wallonia Agricultural Portal" [https://agriculture.wallonie.be/accueil]. Accessed 29 November 2020
- [4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)". [https://www.health.belgium.be/fr/a-propos-de-nous]. Accessed 15 November 2020
- [5] Scientific Research (Recherche Scientifique). "Missions". [http://www.recherchescientifique.be/index.php?id=2745]. Accessed 17 November 2020
- [6] Sciensano. 2020. "Infectious Diseases" [https://www.healthybelgium.be/en/health-status/54-infectious-diseases]. Accessed 17 November 2020

2.3 REAL-TIME SURVEILLANCE AND REPORTING

2.3.1 Indicator and event-based surveillance and reporting systems

2.3.1a

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

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

Current Year Score: 1

Belgium conducts ongoing event-based surveillance (EBS) and analysis for infectious diseases. EBS is implemented in Belgium at the federal and the regional levels, with an online platform where health professionals can report disease-related information or contact disease experts, and which produces a monthly report on events of importance. [1, 2] Any events of interest reported through the online platform are flagged up to and discussed in the Risk Assessment Group, a group of representatives from health administration and of health experts coordinated by the Institute for Public Health with a view to assessing the public health risk. [1, 3] However, there is no publicly available evidence that this EBS system is conducted or analysed on a daily basis, neither in the WHO Joint External Evaluation of Belgium, completed in June 2017, nor from the Belgian National Crisis Centre, nor in the Law concerning emergency and intervention plans which mandates EBS. [1, 4, 5, 6]

- [1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf]. Accessed 13 November 2020
- [2] Institute of Public Health. "Reporting of infectious diseases". [https://www.wiv-isp.be/Matra/cf/connexion.aspx]. Accessed 13 November 2020
- [3] Institute of Public Health - Quolin S. 21 May 2015. "Risk assessment group (RAG), between event identification and risk management". [https://epidemiologie.wiv-isp.be/ID/Documents/Seminar/SSID_2015/RAG.pdf]. Accessed 13 November 2020
- [4] National Crisis Centre. "Decree 16/02/2006 - Emergency and intervention plans (AR 16/02/2006 - Plans d'urgence et d'intervention)". [https://centredecrise.be/fr/legislation/ar-16022006-plans-durgence-et-dintervention]. Accessed 13 November 2020
- [5] National Crisis Centre. "The different emergency plans (Les différents plans d'urgence)". [https://centredecrise.be/fr/content/les-differents-plans-durgence]. Accessed 13 November 2020
- [6] Federal Interior Public Service. Law C 2006/00885, 26 October 2006. "Ministerial circular NPU-1 concerning emergency and intervention plans (Circulaire ministérielle NPU-1 relative aux plans d'urgence et d'intervention)".

[https://centredecrise.be/sites/default/files/cm-mo_npu-1_26_10_2006_plans_durgence-noodplannen.pdf]. Accessed 13 November 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 publicly available evidence that Belgium has reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years. The WHO pages for Disease Outbreak News, which record all reports of notifiable diseases outbreaks, show that Belgium has not reported such events, either in 2019 or 2020. [1, 2] There is no evidence that Belgium announced COVID-19 as a potential PHEIC. [3, 4]

[1] World Health Organisation (WHO). 2020. "Disease Outbreak News - 2019".

[<http://www.who.int/csr/don/archive/year/2019/en/>]. Accessed 13 November 2020

[2] World Health Organisation (WHO). 2020. "Disease Outbreak News - 2020".

[<http://www.who.int/csr/don/archive/year/2020/en/>]. Accessed 13 November 2020

[3] The Brussels Times. 31 January 2020. "Coronavirus global health emergency: what about Belgium?"

[<https://www.brusselstimes.com/news/belgium-all-news/92952/coronavirus-global-health-emergency-what-about-belgium-china-world-health-organisation-who-pheic-leuven-brussem-outbreak-brussels-airport/>]. Accessed 30 November 2020

[4] Center for Infectious Disease Research and Policy. 30 October 2020. "WHO extends COVID-19 emergency as global total tops 45 million" [<https://www.cidrap.umn.edu/news-perspective/2020/10/who-extends-covid-19-emergency-global-total-tops-45-million>]. Accessed 30 November 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 Belgian Institute of Public Health operates an electronic reporting surveillance system. Electronic reporting systems, called Matra at a national level, or Matra-Bru for the Brussels region, are implemented at a national and sub-national level. [1, 2] The surveillance sites give the list of notifiable diseases and allows individuals to record a report, and to register if desired. The declaration of a notifiable disease via the online platform respects the same confidentiality rules as a traditional declaration, namely that while the purpose is not to identify sick individuals, it might be necessary to disclose the identity of a patient to be able to react to a potential outbreak. [3]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Institute of Public Health (WIV-ISP). "Matra-Bru - reporting of infectious diseases (Matra-Bru - Enregistrement des Maladies Transmissibles)". [<https://www.wiv-isp.be/matra/bru/connexion.aspx>]. Accessed 13 November 2020

[3] Communal Commission (Commission Communautaire Commune). "Mandatory declaration of infectious diseases

(Déclaration obligatoire des maladies transmissibles)". [<https://www.wiv-isp.be/matra/bru/connexion.aspx>]. Accessed 13 November 2020

2.3.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that Belgium's electronic reporting system collects ongoing/real time laboratory data. According to the report for the WHO Joint External Evaluation for Belgium, completed in June 2017, the country has an implemented electronic notification systems (known as Matra and Matra-Bru), which is a "well functioning notification system for infectious disease". [1] Furthermore, the report states that the indicator-based surveillance system "involves reporting from clinicians and laboratories to the regional level, and the federal level has access to data on request", indicating that there is an electronic reporting system that collects laboratory data, however it is unclear how often this is collected. [1] There is no evidence from the electronic reporting surveillance system operated by the Belgian Institute of Public Health that the data collected include ongoing/real time laboratory data. [2] Neither the Ministry of Health, nor the Scientific Research Department make any mention of such data collection. [3, 4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed

[2] Institute of Public Health (WIV-ISP). "Matra-Bru - reporting of infectious diseases (Matra-Bru - Enregistrement des Maladies Transmissibles)". [<https://www.wiv-isp.be/matra/bru/connexion.aspx>]. Accessed 13 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[4] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 13 November 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

Belgium has a national Electronic Health Records (EHR) system. This system is in place as of 2008, and as of 2010 it was recorded that over 80% of all general practitioners (GPs) used these EHR. [1] As of 2016, 50-75% of Belgian primary care facilities used EHR, and over 75% of secondary and tertiary care facilities used EHR, but no data is available describing coverage after 2016. [2] There is no more recent data available from the Ministry of Health or the national research laboratory. [3, 4]

- [1] Devlies J, Walossek U, Artmann J, Giest S, Dumortier J. October 2010. "Country Brief: Belgium". [http://ehealth-strategies.eu/database/documents/Belgium_CountryBrief_eHStrategies.pdf]. Accessed 13 November 2020
- [2] World Health Organisation (WHO). 2016. "Belgium - 4. Electronic Health Records (EHRs)". [<http://www.who.int/goe/publications/atlas/2015/bel.pdf>]. Accessed 13 November 2020
- [3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020
- [4] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 13 November 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

The national public health system has access to the Electronic Health Records (EHR) of Belgian nationals. The Health System at the National Level has access to Patient Records within the mHealth programme. [1] As of 2010, General Practitioners (GPs) have received certification to use EHRs within the official e-Health policy, and physiotherapists and home nurses received the same certification in 2013-2014: these professions have to register to use EHRs. The EHRs are thereafter accessible by other doctors and healthcare providers. [2, 3, 4] The official e-Health mission statement explicitly articulates that the e-Health platform which supports all EHRs complements the national public health system, with the intention of improving the quality and continuity of the health services. [5]

- [1] World Health Organisation (WHO). 2016. "Belgium - 4. Electronic Health Records (EHRs)". [<http://www.who.int/goe/publications/atlas/2015/bel.pdf>]. Accessed 13 November 2020
- [2] Coorevits P. 13-15 May 2013. "EHR Certification in Belgium: A Success Story". [<http://www.eurorec.org/userfiles/file/EHR%20Certification%20in%20Belgium%20-%20Pascal%20Coorevits.pdf>]. Accessed 13 November 2020
- [3] Subts R, Sinnesael L. 2017. "The Use of Electronic Health Records in Belgian Physiotherapy". [https://lib.ugent.be/fulltxt/RUG01/002/350/192/RUG01-002350192_2017_0001_AC.pdf]. Accessed 13 November 2020
- [4] de7de. 21 October 2015. "Actionplan eHealth 2013-2018". [https://www.de7de.be/DE7DE/_PREDEFINED/index.asp?web_language=NL&web_sitename=DE7DE&structure_record=20821&NEWSITEMS_DETAIL=1&NEWSITEMS_RECORD=5389&INTRO_OK=INTRO_OK]. Accessed 13 November 2020
- [5] e-Health. "Mission". [<https://www.ehealth.fgov.be/ehealthplatform/fr/mission>]. Accessed 13 November 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

Belgium has had data standards in place since 2015 to ensure data is comparable. Belgium's Electronic Health Records (EHR) have been certified by the International Organisation for Standardisation (ISO) as ISO 13972:2015 (an accreditation for detailed clinical models and processes in health informatics). [1, 2, 3] This was set up as part of the National Action Plan eHealth 2013-2018, managed by the Federal Public Service of Social Affairs and Public Health: this plan set up how Belgium was to roll out a national eHealth platform to allow health data sharing and exchange between healthcare providers. [4] Within this plan, it is specified that data is standardised with the KMEHR (Kind Messages for Electronic Healthcare Records)

tool, a tool recommended by the Belgian Healthcare Telematics Commission, which allows the exchange of structured clinical information. [5]

[1] The Scientific Institute of Public Health (WIV-ISP). "Normalisation of information (La normalisation de l'information)".

[<https://healthdata.wiv-isp.be/fr/la-normalisation-de-linformation>]. Accessed 15 November 2020

[2] e-Health. "Action Point 13: Standards and terminology (Point d'action 13 : standards et politique de terminologie)".

[<http://www.plan-egezondheid.be/fr/points-daction/standards-et-politique-de-terminologie/>]. Accessed 15 November 2020

[3] Coorevits P, EuroRec, and Ghent University. 13-15 May 2013. "EHR Certification in Belgium - A Success Story".

[<http://www.eurorec.org/userfiles/file/EHR%20Certification%20in%20Belgium%20-%20Pascal%20Coorevits.pdf>]. Accessed 15 November 2020

[4] de7de. 21 October 2015. "Actionplan eHealth 2013-2018".

[https://www.de7de.be/DE7DE/_PREDEFINED/index.asp?web_language=NL&web_sitename=DE7DE&structure_record=20821&NEWSITEMS_DETAIL=1&NEWSITEMS_RECORD=5389&INTRO_OK=INTRO_OK]. Accessed 15 November 2020

[5] e-Health. "Welcome to the eHealth Platform Standards website".

[<https://www.ehealth.fgov.be/standards/kmehr/en#ConcerningKMEHR>]. Accessed 15 November 2020

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

2.4.2a

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

Yes = 1, No = 0

Current Year Score: 0

Belgium does not yet have a mechanism for data sharing established. However, the Federal Agency for the Safety of the Food Chain (FASFC) is currently developing the Platform for Surveillance of Zoonotic Events (PLASUR), and expects to finalise it by 2020, according to the WHO Joint External Evaluation (JEE) for Belgium, completed in June 2017, and a report by the FASFC from October 2018. [1, 2] In addition, a report from July 2018 by the European Commission notes that Belgium's One Health strategy is not yet fully integrated. [3] The Ministry of Health (through the Institute of Public Health), the Federal Agency for the Safety of the Food Chain (FASFC), and the Centre for Veterinary and Agrochemical Study and Research ("Centre d'Etude et de Recherches vétérinaires et agrochimiques" or CERVA) do collaborate on reports on zoonoses, but there is no evidence that this currently translates into a mechanism for regular data sharing. [4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Federal Agency for the Safety of the Food Chain (FASFC). October 2018. "Additional information regarding the confirmation of African swine fever (ASF) virus in wild boar in Belgium".

[http://www.afsca.be/businesssectors/animalproduction/animalhealth/africanswinefever/_documents/ASF-Export---Regionalisation-and-additional-information-on-ASF-in-wild-boar-in-Belgium_2018-.pdf]. Accessed 15 November 2020

[3] European Commission - Directorate General for Health and Food Safety. 11 July 2018. "Report of a One Health country visit to Belgium to discuss policies relating to antimicrobial resistance". [http://ec.europa.eu/food/audits-analysis/audit_reports/details.cfm?rep_inspection_ref=2017-6293]. Accessed 15 November 2020

[4] Federal Agency for the Safety of the Food Chain (FASFC). December 2015. "Reports on zoonotic agents in Belgium".

[<http://www.fasfc.be/publications-en/Report-zoonotic-agents-Belgium.asp>]. Accessed 15 November 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

Belgium makes de-identified health surveillance data on disease outbreaks available to both healthcare workers and the public on a weekly basis. [1] A website curated by the Belgian Scientific Institute of Public Health (WIV-ISP), a government agency, gives incidence data as to the number of cases of different infectious diseases, and allows members of the public to peruse the number of de-identified disease cases by year back to 2008 at a provincial resolution. The website gets its information as to number of cases from the sentinel laboratory network (EpiLabo), the National Reference Centres, and the HIV/AIDS register, and publishes weekly data accordingly. [2]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] The Scientific Institute of Public Health (WIV-ISP). 2020. "EPISTAT Belgian infectious diseases". [<https://epistat.wiv-isp.be/>]. Accessed 15 November 2020

2.4.3b

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

Yes = 1 , No = 0

Current Year Score: 1

Belgium makes available de-identified COVID-19 surveillance data on the website of the Institute of Public Health (Sciensano). Sciensano has created a website specifically for tracking daily, weekly, and monthly COVID-19 indicators, including number of cases, number of hospitalisations, number of deaths, and number of tests performed. This information is available both on a national scale, and on a regional and provincial scale. [1] Belgium has even made publically available the full de-identified datasets for download on the Sciensano website. [2]

[1] Sciensano. 2020. "Belgium COVID-19 Epidemiological Situation" [<https://datastudio.google.com/embed/u/0/reporting/c14a5cfc-cab7-4812-848c-0369173148ab/page/tpRKB>] Accessed 15 November 2020

[2] Sciensano. 2020. "COVID-19" [<https://epistat.wiv-isp.be/covid/>] Accessed 15 November 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

Belgium has a law that safeguards the confidentiality of identifiable health information for individuals. Belgium's Law Concerning Public Statistics safeguards the confidentiality of health information for individuals obtained during health surveillance. This law stipulates that if it is necessary to collect personal data the confidentiality of these must be respected as soon as they are collected by separating immediately the identifying data from the auxiliary data, except with the explicit permission from the Superior Statistics Council (Conseil Supérieur de Statistiques). [1] In addition, the National Statistics Institute must take all necessary precautions to ensure the physical and logical protection of all individual data collected to prevent illicit disclosure or any use other than for statistical purposes. [1] In addition, the confidentiality of identifiable health information for individuals is safeguarded by the EU's General Data Protection Regulation, which came into force in May 2018. [2]

[1] The Commission for protection of private life (La Commission de la protection de la vie privée). Law 1962070402, 4 July 1962. "Law concerning public statistics (Loi relative à la statistique publique)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&table_name=loi&cn=1962070430]. Accessed 15 November 2020

[2] 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 15 November 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

Belgium has a law that safeguards the confidentiality of identifiable health information for individuals that includes mention of protections from cyber attacks. The Law Concerning Public Statistics, which safeguards the confidentiality of identifiable individual health information, includes mention of protections from cyber attacks. [1] The original law states that if it is necessary to collect personal data, the confidentiality of these must be respected as soon as they are collected by separating immediately the identifying data from the auxiliary data, except with the explicit permission from the Superior Statistics Council (Conseil Supérieur de Statistiques). In addition, the National Statistics Institute must take all necessary precautions to ensure the physical and logical protection of all individual data collected, including as part of surveillance operations, to prevent illicit disclosure or any use other than for statistical purposes. [2] Belgium added a clause in 2006 to this law stating that all statisticians and computer scientists working on surveillance data must be advised on how to anonymise, encrypt, and scramble data to avoid the data being divulged illegally. [1] In addition, the confidentiality of identifiable health information for individuals is safeguarded by the EU'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. [3]

[1] The Commission for protection of private life (La Commission de la protection de la vie privée). Law 2006011161, 21 April 2006. "Law modifying the laws of the 4th of July 1962 concerning public statistics and of the 8th of August 1983 organising a national register of physical persons (Loi modifiant la loi du 4 juillet 1962 relative à la statistique publique et la loi du 8 août 1983 organisant un Registre national des personnes physiques)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2006032246&table_name=loi]. Accessed 15 November 2020

[2] The Commission for protection of private life (La Commission de la protection de la vie privée). Law 1962070402, 4 July 1962. "Law concerning public statistics (Loi relative à la statistique publique)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&table_name=loi&cn=1962070430]. Accessed 15 November 2020

[3] 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 15 November 2020

2.4.5 International data sharing

2.4.5a

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

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

Current Year Score: 2

There is evidence that the Belgian government has made a commitment via public statements, legislation, and/or a cooperative agreement to share surveillance data for multiple diseases during a public health emergency with other countries in the region for more than one disease. As a member of the European Union, Belgium shares surveillance data during public health emergencies with other countries in the region. All EU and EEA countries are part of the European Centre 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. The EWRS is used for notifications on outbreaks, exchanging information and decisions about the coordination of measures among Member States. Over the years, it has played an important role to support health crisis related to severe acute respiratory syndrome (SARS), Ebola virus disease, avian influenza in humans and other communicable diseases." [1] Article 9 of Chapter IV of the European Union (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 crossborder 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 Centre for Disease Prevention and Control. "Early Warning and Response System (EWRS)."

[<https://ecdc.europa.eu/en/early-warning-and-response-system-ewrs>]. Accessed 15 November 2020

[2] 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. Official Journal of the European Union.

[https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/decision_serious_crossborder_threats_22102013_en.pdf]. Accessed 15 November 2020

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

There is no evidence that Belgium has in place a system to provide support at the sub-national level to conduct contact tracing in the event of an active or future public health emergency. Neither the Ministry of Health, the Federal Public Health Service, the Research Federation, or the Institute of Public Health make any mention of any support that may be given to conduct contact tracing. There is no evidence as to a publicly available plan for contact tracing altogether. [1, 2, 3, 4]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[2] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[3] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

[4] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>]. Accessed 17 November 2020

2.5.1b

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

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

Current Year Score: 0

There is no evidence that Belgium provides wrap-around services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support and medical attention. There is evidence that the Belgian government provides some financial or economic support to individuals and businesses affected (due to enforced closure or reduced business) during the COVID-19 pandemic, mostly in the form of deferring payments, easier access to government allowances, and various tax help measures. [1, 2, 3] However, there is no evidence of any specific measures targeted at infected people and their contacts, nor of any measures to help people self-isolate or seek medical attention, neither from the Ministry of Health, the Federal Public Health Service, the Research Federation, or the Institute of Public Health. [4, 5, 6, 7]

[1] ING. 20 March 2020. "Belgium: special powers and special measures" [<https://think.ing.com/articles/belgium-special-powers-and-special-measures>]. Accessed 17 November 2020

[2] BDO Belgium. 16 November 2020. "Coronavirus business support measures" [<https://www.bdo.be/en-gb/news/2020/coronavirus-business-support-measures>]. Accessed 17 November 2020

[3] WHO. 10 November 2020. "Policy responses for Belgium" [<https://www.covid19healthsystem.org/countries/belgium/livinghit.aspx?Section=6.1%20Measures%20in%20other%20sectors&Type=Section>]. Accessed 17 November 2020

[4] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[5] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 17 November 2020

[6] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

[7] Belgian Federal Authorities. 2020. "COVID-19: What are the current measures?" [<https://www.info-coronavirus.be/en/faq/>]. Accessed 17 November 2020

2.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Belgium makes available de-identified data on contact tracing efforts for COVID-19. The Institute of Public Health makes available de-identified data on the number of cases, number of hospitalisations, number of deaths, and number of tests and the Belgian Federal Authorities make available regular reports on the COVID-19 situation and information on the contact tracing process, but there is no evidence of any data on contact tracing data. [1, 2, 3, 4] There is no additional information from the Ministry of Health or the National Laboratory. [5, 6]

[1] Sciensano. 2020. "Belgium COVID-19 Epidemiological Situation"

[<https://datastudio.google.com/embed/u/0/reporting/c14a5cfc-cab7-4812-848c-0369173148ab/page/tpRKB>] Accessed 15 November 2020

[2] Sciensano. 2020. "COVID-19" [<https://datastudio.google.com/embed/u/0/reporting/c14a5cfc-cab7-4812-848c-0369173148ab/page/tpRKB>] Accessed 15 November 2020

[3] Belgian Federal Authorities. 2020. "Coronavirus COVID-19 Latest news" [<https://www.info-coronavirus.be/en/news/>] Accessed 15 November 2020

[4] Belgian Federal Authorities. 2020. "Coronavirus COVID-19 Contact Tracing: slowing down the virus together" [<https://www.info-coronavirus.be/en/contact-tracing/>] Accessed 15 November 2020

[5] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[6] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 15 November 2020

2.5.2 Point of entry management

2.5.2a

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

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

Current Year Score: 1

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

As of 2020, due to the COVID-19 pandemic, all people entering Belgium have to fill out a Passenger Locator Form, so that public health authorities can track people entering Belgium from another country in case of contact with or exposure to a declared case of COVID-19, so that appropriate quarantine, and test and isolation measures can be taken if needed. [1] There is however no further evidence of a generalised agreement between the public health system and the border control authorities to identify suspected and potential cases in international travelers and trace and quarantine their contacts, neither from the Ministry of Health, the Federal Public Health Service, the Research Federation, the Institute of Public Health, or the Border Control Authorities. [2, 3, 4, 5, 6]

[1] Belgian Federal Authorities. 2020. "What are the current measure? Passenger Locator Form" [<https://www.info-coronavirus.be/en/faq/>] Accessed 15 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[3] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 29 November 2020

[4] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 29 November 2020

[5] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>]. Accessed 29 November 2020

[6] Federal Police Border Control. 2020. "General Declaration" [<https://www.police.be/bordercontrol/en/general-declaration>]. Accessed 30 November 2020

2.6 EPIDEMIOLOGY WORKFORCE

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

2.6.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 1

Belgium has in-country applied epidemiology training, in the form of the European Programme for Intervention Epidemiology Training (EPIET) and the European Public Health Microbiology Training Programme (EUPHEM) courses. [1,2] In addition, there is evidence some Belgians attended some European Centre for Disease Prevention and Control (ECDC) training including EPIET in the years 1995-2008, and that as Belgium participates in the EPIET programme, the Belgian government provided resources to send citizens to another country to participate in applied epidemiology training programs. [3]

[1] European Centre for Disease Prevention and Control (ECDC). 2020. "The Scientific Institute of Public Health - EPIET (Wetenschappelijk Instituut Volksgezondheid - L'Institut Scientifique de Santé Publique - EPIET)".

[<https://ecdc.europa.eu/en/wetenschappelijk-instituut-volksgezondheid-linstitut-scientifique-de-sante-publique-epiet>]. Accessed 15 November 2020

[2] European Centre for Disease Prevention and Control (ECDC). 2020. "The Scientific Institute of Public Health - EUPHEM (Wetenschappelijk Instituut Volksgezondheid - L'Institut Scientifique de Santé Publique - EUPHEM)".

[<https://ecdc.europa.eu/en/wetenschappelijk-instituut-volksgezondheid-linstitut-scientifique-de-sante-publique-euphem>]. Access 15 November 2020

[3] European Centre for Disease Prevention and Control (ECDC). 27 October 2008. "Meeting Report: Training strategy for intervention epidemiology in the European Union".

[https://ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/0810_MER_Training_Strategy_for_Intervention_Epidemiology.pdf]. Accessed 15 November 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

There is evidence that the available field epidemiology training programs are explicitly inclusive of animal health professionals. Belgium offers a training programme that includes provisions for animal health professionals. The European Public Health Microbiology Training Programme (EUPHEM), as conducted in Belgium, includes provisions for microbiologists with a veterinary background. [1] The Scientific Institute of Public Health, which runs the training, notes the Institute "is in a merger process with the national institute for animal health (CODA-CERVA)" and that in the near future the new institute "will cover the entire chain from animal health, food safety to human disease, following the 'One Health' vision", indicating that more inclusive training programmes might be offered in the future. [2]

[1] European Centre for Disease Prevention and Control (ECDC). 2020. "About the fellowship".

[<https://ecdc.europa.eu/en/epiet-euphem/about>]. Accessed 15 November 2020

[2] European Centre for Disease Prevention and Control (ECDC). 2020. "The Scientific Institute of Public Health - EUPHEM (Wetenschappelijk Instituut Volksgezondheid - L'Institut Scientifique de Santé Publique - EUPHEM)".

[<https://ecdc.europa.eu/en/wetenschappelijk-instituut-volksgezondheid-linstitut-scientifique-de-sante-publique-euphem>]. Accessed 15 November 2020

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1, No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 1

There is evidence that Belgium has in place an overarching national public health emergency response plan for addressing multiple communicable diseases with pandemic potential. The Incident and Crisis Management Unit of Federal Public Service for Public Health, the Safety of the Food Chain and the Environment has developed a Medical Intervention Plan ("Plan d'Intervention Médical" or MIP), which includes planning for multiple public health events, although it is specifically stated it is a mono-disciplinary intervention plan for a large-scale collective incident, not limited to disease outbreaks. [1, 2] The MIP includes procedures for deployment of public health response cells at multiple sites, information as to chain of command and responsibilities, and communication plans across sites. [2] The Belgian national general preparedness plan, which is to be drawn up by the Federal Public Service for Public Health, the Safety of the Food Chain and the Environment, is currently under development, according to the WHO Joint External Evaluation (JEE) for Belgium, completed in June 2017, and there is no information about it publicly available at the time of research. [1, 3] The Belgian Influenza Pandemic Operating Plan mentions only preparedness for an influenza health emergency, and the JEE only mentions individual preparedness plans, including for Ebola, avian flu, and heatwaves, showing no evidence of any plan covering multiple infectious diseases. [1, 4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. January 2017. "Medical Intervention Plan (Plan d'Intervention Médical)".

[<http://nvkvw.be/file?fle=910217&ssn=c3827b5061e44e6a8dc34ad6dd6087ec0975a9b6>]. Accessed 15 November 2020

[3] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. 2018. "General Preparedness Plan". [<https://www.health.belgium.be/en/search?keyword=general+preparedness+plan>]. Accessed 15 November 2020

[4] Minister of Social Affairs and Public Health. 30 March 2009. "Opinion no. 48 of 30 March 2009 on the Belgian "influenza pandemic" operating plan".

[https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/opinion_48_web.pdf]. Accessed 15 November 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

There is evidence that Belgium's overarching plan has been updated in the last three years. The Medical Intervention Plan (Plan d'Intervention Médical) came into place in 2017. [1]

[1] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. January 2017. "Medical Intervention Plan (Plan d'Intervention Médical)".

[<http://nvkvw.be/file?fle=910217&ssn=c3827b5061e44e6a8dc34ad6dd6087ec0975a9b6>]. Accessed 15 November 2020

3.1.1c

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

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

Current Year Score: 0

There is insufficient evidence that Belgium's Medical Intervention Plan (Plan d'Intervention Médical) includes considerations for pediatric and/or other vulnerable populations [1].

[1] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. January 2017. "Medical Intervention Plan (Plan d'Intervention Médical)".

[<http://nvkvw.be/file?fle=910217&ssn=c3827b5061e44e6a8dc34ad6dd6087ec0975a9b6>]. Accessed 15 November 2020

3.1.1d

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

Yes = 1 , No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

Belgium has no formal plan or mechanism to engage with the private sector in case of public health emergency. However, the private sector has stakeholders in the Belgian National Crisis Centre, the national body in charge of risk management, public safety, emergency planning, and crisis management, according to the WHO Joint External Evaluation for Belgium completed in June 2017, the European Commission, and the National Crisis Centre. [1, 2, 3] The Joint External Evaluation also found that collaborations can be and have been in the past set up very quickly in the event of public health emergencies such as the threat of an Ebola outbreak or the epidemic of influenza A in 2009, but there is no evidence that these collaborations are built upon or set up according to any formal plans or templates. [1, 4, 5, 6] While there is evidence that the European Commission (which includes Belgium) has instated public-private partnership to respond to the COVID-19 pandemic with research into vaccines, there is not evidence that this takes the form of a long-term MoU or strategy document. [7]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] European Commission. 16 October 2017. "Belgium - Disaster management structure".

[http://ec.europa.eu/echo/files/civil_protection/vademecum/be/2-be-1.html#stak]. Accessed 15 November 2020

[3] Crisis Centre (Centre de Crise). "Crisis Management - the five disciplines (Gestion de crise - les cinq disciplines)".

[<https://centredecrise.be/fr/content/les-cinq-disciplines>]. Accessed 15 November 2020

[4] European Centre for Disease Prevention and Control (ECDC). October 2015. "Public health emergency preparedness for cases of viral haemorrhagic fever (Ebola) in Belgium: a peer review".

[<https://ecdc.europa.eu/sites/portal/files/media/en/publications/Publications/ebola-preparedness-belgium.pdf>]. Accessed 15 November 2020

[5] Thoreau F, Cheneviere C, Rossignol N. 2012. "Public action and governmental responsibility: the management of influenza A(H1N1) in 2009 (Action publique et responsabilité gouvernementale : la gestion de la grippe A(H1N1) en 2009)".

[<https://www.cairn.info/revue-courrier-hebdomadaire-du-crisp-2012-13-page-1.htm>]. Accessed 15 November 2020

[6] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. "Private sector".

[https://www.health.belgium.be/en/search?keyword=private%20sector&f%5B0%5D=field_download_subject%3A1103]. Accessed 15 November 2020

[7] Science Business. 25 February 2020. "EU puts €45M into €90M public-private partnership for coronavirus vaccine research" [<https://sciencebusiness.net/news/eu-puts-eu45m-eu90m-public-private-partnership-coronavirus-vaccine-research>] Accessed 15 November 2020

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 0

There is no evidence that Belgium has in place guidelines to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic for one or more diseases. The WHO Joint External Evaluation report for Belgium, conducted in June 2017, makes no mention of such a plan. [1] There is no information from the Ministry of Health, nor from the the Federal Public Health Service, or the Research Federation. [2, 3, 4] There is evidence that Belgium has put together a generic toolbox, based on the response to the COVID-19 pandemic, to guide responses to future infectious disease outbreaks, but there is no evidence that this includes any provisions for NPIs, as the plan has not been made public. [5]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[3] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[4] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

[5] The Brussels Times. 2 March 2020. "Belgium's coronavirus emergency plan: what does it mean?" [<https://www.brusselstimes.com/news/belgium-all-news/98140/belgiums-coronavirus-emergency-plan-what-does-it-mean/>]. Accessed 15 November 2020

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 1

There is evidence that Belgium activated a national emergency response plan for an infectious disease outbreak in the past year, and the country has completed a national-level biological threat-focused exercise within the last year. In response to the COVID-19 pandemic, Belgium put together a generic toolbox (which will likely be the blueprint for a national emergency response plan in future), which breaks down the response to COVID-19 into 3 phases describing the epidemiological situation in the country. [1] There is, however, no evidence that Belgium activated an existing national response plan in response to COVID-19. [2] In addition, Belgium implemented a national-level exercise focusing on chemical, biological, radiological, nuclear and explosives threats in 2019, to test the country's response. The scenario involved a biological terror attack during a festival, involved the response of a specialised capacity team, and was particularly designed to test communication and imaging technology of the response team. [3] The WHO Simulation Exercise page does not have any

information on exercises with Belgium. [4]

- [1] The Brussels Times. 2 March 2020. "Belgium's coronavirus emergency plan: what does it mean?" [https://www.brusselstimes.com/news/belgium-all-news/98140/belgiums-coronavirus-emergency-plan-what-does-it-mean/] Accessed 15 November 2020
- [2] WHO. 2020. "COVID-19 Health Systems Response Monitor - Belgium" [https://www.covid19healthsystem.org/countries/belgium/livinghit.aspx?Section=3.3%20Maintaining%20essential%20services&Type=Section]. Accessed 30 November 2020
- [3] Directorate General Civil Security. 29 November 2019. "Multidisciplinary exercise Stayin' Connected concerning terrorist CBRNe threats and the development of new information and communication technology" [https://www.civieleveiligheid.be/en/news/multidisciplinary-exercise-stayin-connected-concerning-terrorist-cbrne-threats-and-development] Accessed 15 November 2020
- [4] World Health Organization. "Simulation Exercise" [https://extranet.who.int/sph/simulation-exercise]. Accessed 15 November 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 insufficient evidence that Belgium has developed, within the last year, a plan to improve response capacity. In response to the COVID-19 pandemic, Belgium has put together a generic toolbox (which will likely be the blueprint for a national emergency response plan in future), which breaks down the response to COVID-19 into 3 phases describing the epidemiological situation in the country but there is no evidence that this plan has been published yet. [1] The WHO after action review page does not have any information on exercises with Belgium. [2] Neither the Ministry of Health, the Federal Public Health Service, the Institute of Public Health, nor the Belgian National Emergency Management System make any mention of a plan to improve response capacity. [3, 4, 5]

- [1] The Brussels Times. 2 March 2020. "Belgium's coronavirus emergency plan: what does it mean?" [https://www.brusselstimes.com/news/belgium-all-news/98140/belgiums-coronavirus-emergency-plan-what-does-it-mean/] Accessed 15 November 2020
- [2] World Health Organization. "After Action Review." [https://extranet.who.int/sph/after-action-review]. Accessed 15 November 2020
- [3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [https://www.health.belgium.be/en/health]. Accessed 13 November 2020
- [4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)". [https://www.health.belgium.be/fr/a-propos-de-nous]. Accessed 29 November 2020
- [5] Sciensano. 2020. "Infectious Diseases" [https://www.healthybelgium.be/en/health-status/54-infectious-diseases]. Accessed 29 November 2020
- [6] Belgian National Emergency Management System. "Incident & Crisis Management System" [http://icmsbelgium.net/]. Accessed 30 November 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 the national-level biological threat-focused exercise or response Belgium has undergone in the last year has included representatives from the private sector. There is no evidence that either the chemical, biological, radiological, radiological, nuclear and explosives (CBRNe) threats-focused exercise conducted in November 2019, or the generic toolbox, which may be the basis for Belgium's national response plan, put together in response to the COVID-19 pandemic make any mention of the involvement of the private sector. [1, 2] The WHO Simulation Exercise page does not have any information on exercises with Belgium. [3]

[1] The Brussels Times. 2 March 2020. "Belgium's coronavirus emergency plan: what does it mean?"

[<https://www.brusselstimes.com/news/belgium-all-news/98140/belgiums-coronavirus-emergency-plan-what-does-it-mean/>] Accessed 15 November 2020

[2] Directorate General Civil Security. 29 November 2019. "Multidisciplinary exercise Stayin' Connected concerning terrorist CBRNe threats and the development of new information and communication technology"

[<https://www.civieleveiligheid.be/en/news/multidisciplinary-exercise-stayin-connected-concerning-terrorist-cbrne-threats-and-development>] Accessed 15 November 2020

[3] World Health Organization. "Simulation Exercise" [<https://extranet.who.int/sph/after-action-review>]. Accessed 15 November 2020

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1 , No = 0

Current Year Score: 1

Belgium has Emergency Operations Centres (EOCs) in place, which cover health emergencies. According to the WHO Joint External Evaluation report for Belgium, completed in June 2017, Belgium has existing EOCs in place which provide safe environments for emergency response. [1] Legal provisions are made for EOCs in the Royal Decree on Emergency and Intervention Plans, which also outlines the bodies to which the EOCs are answerable. [2, 3] The National Emergency and Intervention Plan ("Plans d'urgence et d'intervention" or PUI) describes the responsibilities for EOCs, including during health emergencies, at the national and regional levels. [1, 4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Federal Interior Public Service. Law C 2006/00885, 26 October 2006. "Ministerial circular NPU-1 concerning emergency and intervention plans (Circulaire ministérielle NPU-1 relative aux plans d'urgence et d'intervention)".

[https://centredecrise.be/sites/default/files/cm-mo_npu-1_26_10_2006_plans_durgence-noodplannen.pdf]. Accessed 15 November 2020

[3] National Crisis Centre. "Decree 16/02/2006 - Emergency and intervention plans (AR 16/02/2006 - Plans d'urgence et d'intervention)". [<https://centredecrise.be/fr/legislation/ar-16022006-plans-durgence-et-dintervention>]. Accessed 15 November 2020

[4] National Crisis Centre. "The different emergency plans (Les différents plans d'urgence)". [<https://centredecrise.be/fr/content/les-differents-plans-durgence>]. Accessed 15 November 2020

3.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Emergency Operations Centres are required to conduct or has conducted a drill at least once per year. While a range of exercises are conducted at frequent intervals, the exact frequency of these exercises has not been specifically stated. There is no evidence as to a required frequency of such drills in the WHO Joint External Evaluation (JEE) for Belgium, completed in June 2017, nor in the 2006 law concerning emergency and intervention plans. [1, 2] In addition, no evidence is available as to a required frequency of exercises from the National Crisis Centre, nor from the Federal Public Service Health, Food Chain Safety, and Environment. [3, 4, 5, 6]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Federal Interior Public Service. Law C?2006/00885, 26 October 2006. "Ministerial circular NPU-1 concerning emergency and intervention plans (Circulaire ministérielle NPU-1 relative aux plans d'urgence et d'intervention)". [https://centredecrise.be/sites/default/files/cm-mo_npu-1_26_10_2006_plans_durgence-noodplannen.pdf]. Accessed 15 November 2020

[3] National Crisis Centre. "Decree 16/02/2006 - Emergency and intervention plans (AR 16/02/2006 - Plans d'urgence et d'intervention)". [<https://centredecrise.be/fr/legislation/ar-16022006-plans-durgence-et-dintervention>]. Accessed 15 November 2020

[4] National Crisis Centre. "The different emergency plans (Les différents plans d'urgence)". [<https://centredecrise.be/fr/content/les-differents-plans-durgence>]. Accessed 15 November 2020

[5] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 19 October 2018.

[6] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 15 November 2020

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence to show that the EOC can conduct, or 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. Belgium has had to respond to many emergency events within the past 4-5 years, however there is no evidence that responses were activated within 120 minutes of the identification of a public health emergency, nor that any follow-up evaluation was conducted or a corrective plan developed or implemented, neither in the WHO Joint External Evaluation for Belgium, conducted in 2017, nor in the law concerning emergency and intervention plans. [1, 2] The National Crisis Centre does not mention a time-span of emergency responses, even when reporting on emergency responses. [3, 4, 5] There is no evidence of responses being limited to or conducted within 120 minutes from the Ministries of Health and the Environment or Ministry of Defence either. [6, 7]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Federal Interior Public Service. Law C 2006/00885, 26 October 2006. "Ministerial circular NPU-1 concerning emergency and intervention plans (Circulaire ministérielle NPU-1 relative aux plans d'urgence et d'intervention)". [https://centredecrise.be/sites/default/files/cm-mo_npu-1_26_10_2006_plans_durgence-noodplannen.pdf]. Accessed 15 November 2020

[3] National Crisis Centre. "Decree 16/02/2006 - Emergency and intervention plans (AR 16/02/2006 - Plans d'urgence et d'intervention)". [<https://centredecrise.be/fr/legislation/ar-16022006-plans-durgence-et-dintervention>]. Accessed 15 November 2020

[4] National Crisis Centre. "The different emergency plans (Les différents plans d'urgence)". [<https://centredecrise.be/fr/content/les-differents-plans-durgence>]. Accessed 15 November 2020

[5] National Crisis Centre. October 2018. "News (Actualités)". [<https://centredecrise.be/fr/news>]. Accessed 15 November 2020

[6] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. 2020. "News". [<https://www.health.belgium.be/en/news>]. Accessed 15 November 2020

[7] Ministry of Defence. 2020. "Articles". [<https://www.mil.be/fr/articles>]. Accessed 15 November 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 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), but there is no publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a

potential deliberate biological event (i.e. bioterrorism attack). The Belgian Public Health Service and National Security Services have jointly conducted an exercise simulating a response to a potential bioterror attack in June 2018, which involved a simulated bioterrorism attack. The response involved identifying laboratories with illicit dangerous pathogens, identifying biological pathogens on the scene of the attack, and testing the preparedness and communications of the first responders team. [1, 2] The report of the WHO Joint External Evaluation for Belgium, conducted in June 2017, states that the public health emergency response in Belgium between public health and security personnel is coordinated by the National Crisis Centre (NCC). [3] The NCC has implemented a standard operating procedure (SOP) in the event of a terrorist attack of any description as of the 1st of May 2016, but this plan has not been made public. [4] There is no evidence of such an SOP from the Ministry of Health nor the the Belgian National Emergency Management System. [5, 6]

[1] UCLouvain. June 2018. "CBRN Exercise 'Bio-Garden'" [<https://uclouvain.be/fr/instituts-recherche/irec/ctma/ctma-biogarden.html>] Accessed 15 November 2020

[2] 7sur7. 19 June 2018. "The bioterrorist threat exists, hence this exercise (La menace bioterroriste existe, d'où cet exercice)". [<https://www.7sur7.be/7s7/fr/1502/Belgique/article/detail/3440795/2018/06/19/La-menace-bioterroriste-existe-d-ou-cet-exercice.dhtml>]. Accessed 15 November 2020

[3] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[4] National Crisis Centre. "Terrorist Threat - Crisis Management and Emergency Planning (Menace terroriste - Gestion de crise et planification d'urgence)". [<https://centredecrise.be/fr/content/menace-terroriste>]. Accessed 15 November 2020

[5] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[6] Belgian National Emergency Management System. "Incident & Crisis Management System" [<http://icmsbelgium.net/>]. Accessed 30 November 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

The Belgian National Crisis Centre's (NCC) Guide to Crisis Communication does not outline how messages will reach populations with different communication needs in the event of public health emergencies. This Guide specifically outlines how messages will reach populations with different communication needs and sets out different groups that may have different communication needs (such as for example different demographics, but also different job descriptions, which may be exposed to vastly different communications media), and explains how to approach communicating with these harder-to-reach groups. It also gives a step-by-step checklist of how to communicate with such target groups. However, while this is a generic guide to communication in a crisis, there is no evidence that it applies to public health emergencies specifically. [1] The WHO Joint External Evaluation for Belgium, conducted in June 2017 specifically states that Belgium must make a priority of "reaching vulnerable and minority groups, through targeted channels, with tailored messages in their own languages." [2]

There is no additional information from the Ministry of Health or the Belgian National Emergency Management System. [3, 4]

[1] National Crisis Centre. June 2007. "A guide to crisis communication (Un guide en communication de crise)".

[https://centredecrise.be/sites/default/files/guide_fr.pdf]. Accessed 15 November 2020

[2] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 15 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>].

Accessed 13 November 2020

[4] Belgian National Emergency Management System. "Incident & Crisis Management System" [<http://icmsbelgium.net/>].

Accessed 30 November 2020

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that Belgium has a risk communication plan that is specifically intended for use during a public health emergency. The National Crisis Centre (NCC) has published a series of risk communication plans for use in the event of emergencies, but they do not specifically mention public health or disease emergencies. The report from the WHO Joint External Evaluation for Belgium, conducted in June 2017, states that NCC has emergency staff covering risk communication and transmission of information to the population. [1] This involves a standard operating procedure (SOP) for crisis communication, the Guide to Crisis Communication (Guide en Communication de Crise), which establishes which stakeholders are responsible for which parts of the communications plan, although these are not mentioned as covering public health or disease emergencies, and more detailed information is not publicly available. [2] There is no additional information from the Ministry of Health or the Belgian National Emergency Management System. [3, 4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 15 November 2020

[2] National Crisis Centre. June 2007. "A guide to crisis communication (Un guide en communication de crise)".

[https://centredecrise.be/sites/default/files/guide_fr.pdf]. Accessed 15 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>].

Accessed 13 November 2020

[4] Belgian National Emergency Management System. "Incident & Crisis Management System" [<http://icmsbelgium.net/>].

Accessed 30 November 2020

3.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Belgium's Guide to Crisis Communication designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. There is insufficient evidence that Belgium has a risk communication plan that is specifically intended for use during a public health emergency. The National Crisis Centre (NCC) has published a series of risk communication plans for use in the event of emergencies, but they do not specifically mention public health or disease emergencies. The WHO Joint External Evaluation for Belgium, conducted in June 2017, states that NCC has emergency staff covering risk communication and transmission of information to the population. [1] This involves a standard operating procedure (SOP) for crisis communication, the Guide to Crisis Communication (Guide en Communication de Crise), which establishes which stakeholders are responsible for which parts of the communications plan, although these are not mentioned as covering public health or disease emergencies, and more detailed information is not publicly available. [2] There is no additional information from the Ministry of Health or the Belgian National Emergency Management System. [3, 4]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] National Crisis Centre. June 2007. "A guide to crisis communication (Un guide en communication de crise)". [https://centredecrise.be/sites/default/files/guide_fr.pdf]. Accessed 15 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[4] Belgian National Emergency Management System. "Incident & Crisis Management System" [<http://icmsbelgium.net/>]. Accessed 30 November 2020

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 2

There is evidence that the Belgian Ministry of Public Health regularly shares information on health concerns. The Ministry of Public Health is active on Twitter, and regularly shares information on a variety of topics including the need to avoid antibiotics in case of viral infections to avoid the spread of antibiotic resistance, diabetes, and COVID-19. [1, 2, 3] The Ministry of Public Health created a webpage specifically to dispel incorrect information about COVID-19. [4] The Belgian Institute of Public Health also regularly shares health-related information on topics including HIV/AIDS and COVID-19, and even includes information in two languages (French and Dutch), with sign-language interpretation. [5, 6]

[1] Twitter. 18 November 2020. "Let us together prevent the spread of antibiotic resistance" [https://twitter.com/be_gezondheid/status/1329016020602925057] Accessed 17 November 2020

[2] Twitter. 14 November 2019. "World Diabetes Day" [https://twitter.com/RIZIV_INAMI/status/1194962474820341762]

Accessed 17 November 2020

[3] Twitter. 30 October 2020. "Information on Coronavirus"

[https://twitter.com/be_gezondheid/status/1322156799701770240] Accessed 17 November 2020

[4] Twitter. 7 February 2020. "Know the facts" [https://twitter.com/be_gezondheid/status/1225682720866521088/photo/1]

Accessed 17 November 2020

[5] Twitter. 21 November 2019. "Fewer HIV diagnoses, HIV information targeted at more diverse audiences"

[<https://twitter.com/sciensano/status/1197420819338727425>] Accessed 17 November 2020

[6] Twitter. 4 November 2020. "Press conference on COVID cases"

[<https://twitter.com/sciensano/status/1323926843041468418>] Accessed 17 November 2020

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is no publicly available evidence that senior leaders in Belgium have shared misinformation or disinformation on infectious diseases in the past two years. There is no evidence of any such spread of untrue facts from the senior leaders in Belgium, and in fact, the Ministry of Public Health created a webpage specifically to dispel incorrect information about COVID-19, while the Belgian delegation to the UN have issued a statement condemning the spread of misinformation. [1, 2] Belgium published a position paper on disinformation in October 2019, strongly condemning disinformation as dangerous. [3]

[1] Twitter. 7 February 2020. "Know the facts" [https://twitter.com/be_gezondheid/status/1225682720866521088/photo/1]
Accessed 17 November 2020

[2] Twitter. 30 June 2020. "Misinformation is dangerous" [<https://twitter.com/BelgiumUN/status/1277948616066416642>]
Accessed 17 November 2020

[3] EU Disinfo Lab. 15 October 2019. "Belgian perspective on disinformation" [<https://www.voxpol.eu/wp-content/uploads/2019/09/An-Overview-of-EU-Action-on-Tackling-Disinformation-Belgian-Action-Against-Disinformation-and-Insights-on-Alt-right-Disinformation-Networks-in-France-and-Belgium-Alexandre-Alaphilippe.pdf>] Accessed 17 November 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: 90.37

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: 99.74

2019

International Telecommunication Union (ITU)

3.6.3 Female access to a mobile phone

3.6.3a

Percentage point gap between males and females whose home has access to a mobile phone

Input number

Current Year Score: 2.0

2019

Gallup; Economist Impact calculation

3.6.4 Female access to the Internet

3.6.4a

Percentage point gap between males and females whose home has access to the Internet

Input number

Current Year Score: 4.0

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 0

There is evidence that Belgium has issued restrictions without international or bilateral support on the import or export of medical goods due to an infectious disease outbreak. In March 2020, the European Commission (EC) issued a temporary

export restriction on personal protective equipment (PPE) for a period of six weeks, which was later extended for another 30 days. [1] The European Commission Regulation 402 of 14 March 2020 required export authorisation for PPE products that are destined to go outside the EU. [2] There is no additional information from the Ministry of Health, the Ministry of Agriculture, the Ministry of Foreign Affairs, the Federal Public Health Service, or the Research Federation. [3, 4, 5, 6, 7]

[1] Global Trade Alert. 15 March 2020. "EU: Temporary export licensing requirement imposed on certain personal protective equipment including protective masks, gloves and garments in response to COVID-19" [<https://www.globaltradealert.org/state-act/43486/eu-temporary-export-licensing-requirement-imposed-on-certain-personal-protective-equipment-including-protective-masks-gloves-and-garments-in-response-to-covid-19>]. Accessed 8 December 2020

[2] Access to European Law. "Commission Implementing Regulation (EU) 2020/402 of 14 March 2020 making the exportation of certain products subject to the production of an export authorisation" [<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.LI.2020.077.01.0001.01.ENG&toc=OJ:L:2020:077:TOC>]. Accessed 8 December 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[4] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[5] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[6] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[7] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

3.7.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Belgium has instated any restrictions on the import or export of non-medical goods due to an infectious disease outbreak. Neither the Ministry of Health, the Ministry of Agriculture, the Ministry of Foreign Affairs or the Belgian Customs Import and Export regulations make any mention of such restrictions. [1, 2, 3, 4]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[2] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[3] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[4] Belgium customs import and export regulations. 2020. "Belgium" [<https://visalist.io/belgium/customs>]. Accessed 17 November 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

There is evidence that Belgium has implemented any restrictions on travellers arriving from a specific country due to an infectious disease outbreak, and there is no evidence of international/bilateral support of this ban. During the COVID-19 pandemic, Belgium implemented bans on travellers arriving from certain high-burden countries, including many countries outside of the European Union, but there is no evidence this was implemented with international or bilateral support.

[1,2,3,4]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[2] Foreign Affairs, Foreign Commerce, and Cooperation for Development. 2016. "Agriculture and Fishing (Agriculture et Pêche)".

[https://diplomatie.belgium.be/fr/politique/coordination_affaires_europeennes/politique_de_la_belgique_au_sein_ue/agriculture_et_peche]. Accessed 15 November 2020

[3] WHO. 2020. "Disease Outbreak News - Belgium" [<https://www.who.int/csr/don/archive/country/bel/en/>] Accessed 18 November 2020

[4] Travelbans.org. 21 November 2020. "Belgium" [<https://travelbans.org/europe/belgium/>] Accessed 23 November 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: 307.09

2017

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 1946.14

2018

WHO; national sources

4.1.1c

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

Yes = 1, No = 0

Current Year Score: 0

Belgium does not have a public workforce strategy in place, updated in the past five years, to identify fields where there is an insufficient public health workforce and strategies to address these shortcomings. Belgium has a workforce strategy that was put in place by the Federal Public Service of Employment, Labour, and Social Dialogue to cover the period 2016-2020, "The Belgian National Strategy for Wellbeing at Work 2016-2020 as proposed by the Minister of Employment: Strategic and operational objectives", but this does not cover public health professionals. [1, 2] There is no information as to a workforce strategy that covers public health professionals from Ministry of Public Health, Food Chain Safety, and Environment, nor from the Ministry of Education. [3, 4, 5]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Ministry of Employment. "The Belgian National Strategy for Wellbeing at Work 2016-2020 as proposed by the Minister of Employment: Strategic and operational objectives". [https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&ved=2ahUKEwjBqfKaz_LdAhXsA8AKHUUmAj4QFjABegQICBAC&url=http%3A%2F%2Fwww.employment.belgium.be%2FWorkArea%2FDownloadAsset.aspx%3Fid%3D45387&usg=AOvVaw2DIHGJxcvdT1GdxfdLe8jA]. Accessed 15 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[4] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 18 October 2018.

[5] Belgium - Education. 2018. "Education". [<https://www.belgium.be/en/education>]. Accessed 15 November 2020

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 558

2019

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

Belgium has the facilities to isolate patients with highly communicable diseases as well as patient isolation facilities. The WHO Joint External Evaluation for Belgium, completed in June 2017, states that all hospitals providing tertiary care have a protocol in place for the isolation of patients where necessary, and in some cases an isolation unit is available. [1] The European Centre for Disease Prevention and Control (ECDC) and European Network for Infectious Diseases (EUNID) certify that Belgium has the in-country capacity to isolate patients, and has appropriate isolation facilities including negative pressure rooms. [2, 3] The Belgian Federal Public Service for Public Health, the Safety of the Food Chain and the Environment describes different hospital levels and their capacity for isolation of highly infectious patients: Belgium has a number of "categorical hospitals", all of which are able to provide isolation facilities. [4] The ECDC report finds that Belgium uses isolation procedures regularly for patients who present with possible anti-microbial resistant (AMR) pathogens, but the standard operating procedures (SOPs) are not always followed as carefully as they ought to be. [2]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] European Centre for Disease Prevention and Control. 20-24 November 2017. "ECDC country visit to Belgium to discuss antimicrobial resistance issues". [https://ecdc.europa.eu/sites/portal/files/documents/ECDC-AMR-country-visit-report_Belgium-2017.pdf]. Accessed 15 November 2020

[3] European Network for Infectious Diseases (EUNID). "Highly Infectious Diseases and Isolation Room Capabilities in European Countries". [http://www.eunid.eu/privato/upload_folder/Inventory%20of%20isolation%20facilities%20in%20EUNID%20countries.pdf]. Accessed 15 November 2020

[4] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. 12 January 2016. "General hospitals". [<https://www.health.belgium.be/en/health/taking-care-yourself/patient-related-themes/cross-border-health-care/healthcare-facility-0>]. Accessed 15 November 2020

4.1.2c

Does the country meet one of the following criteria?

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that Belgium has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years nor that it has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. The Belgian Federal Centre for Expertise on Healthcare (Centre Fédéral d'Expertise des Soins de Santé) mentions in the report on COVID-19 that the isolation capacity in Belgium is insufficient to respond to the COVID-19 pandemic, and issues a recommendation to increase isolation capacity. [1] The WHO Joint External Evaluation report for Belgium, conducted in June 2017, makes no mention of such a review, and neither do the Ministry of Health, the Ministry of Defence, the Federal Public Health Service, or the Research Federation. [2, 3, 4, 5, 6]

[1] Federal Centre for Expertise on Healthcare (Centre Fédéral d'Expertise des Soins de Santé). 2020. "Management of hospital capacity in Belgium during the first wave of the COVID-19 pandemic (Gestion de la capacité hospitalière en Belgique durant la première vague de la pandémie de COVID-19)"

[https://kce.fgov.be/sites/default/files/atoms/files/KCE_335B_Capacite_hospitaliere_durant_pandemie_COVID-19_Synthese_0.pdf]. Accessed 30 April 2021

[2] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health".

[<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[4] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 15 November 2020

[5] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[6] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

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: 1

Belgium has in place plans for national procurement of medical and laboratory supplies for routine needs. According to the Belgian government's website, there are in place national procurement plans of a more general nature, but there are no specific details referring to laboratory or medical supplies. [1] The WHO Joint External Evaluation (JEE) report for Belgium, completed in 2017, mentions that Belgium has in place public procurement policies and agreements that are accessible by the Ministry of Health and the Ministry of Agriculture, for medical supplies such as vaccines, general medical countermeasures, and emergency medical supplies. [2] There are however no specific details as to any procurement plans from the Federal Public Service Health, Food Chain Safety, and Environment, the Ministries of Foreign Affairs or of

Agriculture, or the Scientific Institute for Public Health. [3, 4, 5, 6, 7]

- [1] Public Procurement. 2020. "Public Procurement". [<https://www.publicprocurement.be/fr>]. Accessed 15 November 2020
- [2] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020
- [3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020
- [4] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 15 November 2020
- [5] Foreign Affairs, Foreign Commerce, and Cooperation for Development. 2017. "Public procurement". [https://diplomatie.belgium.be/en/policy/development_cooperation/public_procurement]. Accessed 115 November 2020
- [6] Foreign Affairs, Foreign Commerce, and Cooperation for Development. 2016. "Agriculture and Fishing (Agriculture et Pêche)". [https://diplomatie.belgium.be/fr/politique/coordination_affaires_europeennes/politique_de_la_belgique_au_sein_ue/agriculture_et_peche]. Accessed 15 November 2020
- [7] Scientific Institute for Public Health. "Search for Procurement". [<https://www.sciensano.be/en/search/site/procurement>]. Accessed 15 November 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

Belgium keeps a stockpile of medical supplies, including personal protective equipment (PPE) and vaccines, for national use during a public health emergency. This is evident from a stockpile of personal protective equipment, and vaccines such as polio, which is confirmed by the WHO Joint External Evaluation (JEE) report for Belgium, conducted in June 2017. [1, 2] Hospitals are required by law to maintain a stockpile of medication and PPE under the direction of a pharmacist in case of shortages, are regularly monitored for these supplies, and can be penalised if a sufficient stockpile is not found to be present. [3, 4] In addition, the JEE report states that Belgium has in place international agreements under the European Parliament's Joint Procurement Agreement to Procure Medical Countermeasures, which allow the country to procure medical supplies and countermeasures in case of a public health emergency. [1, 5] There is also evidence that Belgium has in the past set up agreements with manufacturers and distributors to enable the procurement of medical supplies and countermeasures in emergency situations. [6] However, no evidence has been found that these agreements have been made public. [7]

- [1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020
- [2] Sciensano - Fiore L, De Dominicis A, Daas A, Costanzo A. "Calibration of Ph. Eur. BRP batch 4 for oral poliomyelitis vaccine (OPV)". [<https://www.sciensano.be/en/biblio/calibration-ph-eur-brp-batch-4-oral-poliomyelitis-vaccine-opv>]. Accessed 15 November 2020
- [3] Federal Agency for Medicines and Health Products. 20 November 2008. "Hospital pharmacy (Pharmacie hospitalière)". [https://www.afmps.be/fr/humain/medicaments/medicaments/distribution/pharmacies_hospitalieres]. Accessed 15

November 2020

[4] Laurent, Michaël. 5 April 2020. "Report: Lessons from failed COVID-19 control in Belgian nursing homes" [<https://ltccovid.org/2020/04/06/report-lessons-from-failed-covid-19-control-in-belgian-nursing-homes/>] Accessed 15 November 2020

[5] European Commission. "Joint Procurement Agreement to Procure Medical Countermeasures". [https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/jpa_agreement_medicalcountermeasures_en.pdf]. Accessed 15 November 2020

[6] Federal Agency for Medicines and Health Products. 10 November 2009. "Infanrix hexa: temporary import of vaccines from another member state (Infanrix Hexa : importation temporaire de vaccins à partir d'un autre état membre)". [https://www.afmps.be/fr/news/news_infanrix_hexa]. Accessed 15 November 2020

[7] Federal Agency for Medicines and Health Products. 17 February 2016. "Medicines". [https://www.famhp.be/en/human_use/medicines/medicines]. Accessed 15 November 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 insufficient evidence that Belgium has in place a stockpile of laboratory supplies for national use during a public health emergency. The WHO Joint External Evaluation report for Belgium, conducted in June 2017, mentions that Belgium has in place stockpiles for "medicine, food, and non-food items", but there is no explicit mention of laboratory supplies, nor of use in case of public health emergencies. [1] There is no further information from the Ministry of Health, the Ministry of Defence, the Federal Public Health Service, or the Research Federation. [2, 3, 4, 5]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 15 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)". [<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>]. Accessed 17 November 2020

4.2.2c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that Belgium conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. The WHO Joint External Evaluation report for Belgium, conducted in June 2017, makes no mention of such a review, and neither do the Ministry of Health, the Ministry of Defence, the Federal Public Health Service, or the Research Federation. [1, 2, 3, 4, 5]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Health".

[<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed

15 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>].

Accessed 17 November 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 insufficient evidence that Belgium has in place a plan to leverage domestic manufacturing capacity to produce medical supplies for national use during a public health emergency, but there is evidence of a plan to procure medical supplies for national use in such an emergency through the European Union. The WHO Joint External Evaluation report for Belgium, conducted in June 2017, mentions that Belgium has in place "solid legal basis for joint procurement of medical countermeasures, through the European Parliament", as well as "agreements with some manufacturers and distributors to procure some medical countermeasures during a public health emergency or during shortages", but there is no explicit mention of any formal plans or strategy. [1] There is no further information from the Ministry of Health, the Ministry of Defence, the Federal Public Health Service, or the Research Federation. [2, 3, 4, 5] Belgium has in place international agreements under the European Parliament's Joint Procurement Agreement to Procure Medical Countermeasures, which allow the country to procure medical supplies in case of a public health emergency, and which is confirmed in the JEE. [6, 1] However, there is no further information from the Ministry of Health, the Ministry of Defence, the Federal Public Health Service, or the Research Federation. [2, 3, 4, 5]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Health".

[<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 15 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>].

Accessed 17 November 2020

[6] European Commission. "Joint Procurement Agreement to Procure Medical Countermeasures".

[https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/jpa_agreement_medicalcountermeasures_en.pdf]. Accessed 15 November 2020

4.2.3b

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is insufficient evidence that Belgium has in place a plan to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency, or a plan to procure laboratory supplies for national use in such an emergency. The WHO Joint External Evaluation report for Belgium, conducted in June 2017, mentions that Belgium has in place "solid legal basis for joint procurement of medical countermeasures, through the European Parliament", as well as "agreements with some manufacturers and distributors to procure some medical countermeasures during a public health emergency or during shortages", but there is no explicit mention of laboratory supplies, nor of any formal plans or strategy. [1] There is no further information from the Ministry of Health, the Ministry of Defence, the Federal Public Health Service, or the Research Federation. [2, 3, 4, 5]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 13 November 2020

[2] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[3] Ministry of Defence. 2018. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 15 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2018. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 15 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>].

Accessed 17 November 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: 1

Belgium has in place a plan for dispensing medical countermeasures for national use during a public health emergency. This Medical Intervention Plan ("Plan d'Intervention Médical" or MIP) covers the mechanism for dispensing of medical countermeasures to the population in case of emergency. It also describes who coordinates the response, which covers what agencies are immediately put in place at what levels when an emergency is declared and what these agencies coordinate, and who is responsible for dispensing and administering the countermeasures based on the medical chain of command, the deployment of personnel, and the procedures for acquisition of countermeasures, as well as the sending and receiving of countermeasures. [1, 2] Belgium also subscribes to the core competencies for public health emergency preparedness as imposed by the European Union (EU), which include detection and assessment of infectious disease risks, policy development and implementation, coordination and communication within the emergency preparedness system, and emergency risk communication with the public. [2, 3]

[1] Federal agency of medication and health products (AFMPS) (Agence Fédérale des Médicaments et des Produits de Santé (AFMPS)). 13 July 2018. "About the AFMPS (A propos de l'AFMPS)". [<https://www.afmps.be/fr/afmps#mission>]. Accessed 15 November 2020

[2] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. January 2017. "Medical Intervention Plan (Plan d'Intervention Médical)". [https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/pim_janvier_2017.pdf]. Accessed 15 November 2020

[3] European Centre for Disease Prevention and Control (ECDC). October 2017. "Public health emergency preparedness Core competencies for EU Member States". [<https://ecdc.europa.eu/sites/portal/files/documents/public-health-emergency-preparedness-core-competencies-eu-member-states.pdf>]. Accessed 15 November 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 insufficient evidence that Belgium has in place a plan to facilitate the arrival and movement of foreign medical personnel during a public health emergency. Although the WHO Joint External Evaluation for Belgium, completed in June 2017, states "there is a system in place for receiving and sending staff during domestic and international public health emergencies" and that "the personnel deployment process is regularly tested and adjusted on the basis of exercises and lessons exposed in after action reviews," there is no detail available of a specific plan. [1] There is no additional evidence of

this system from the Federal Public Service Health, Food Chain Safety, and Environment, the Belgian First Aid and Support Team, or the Centre for European and International Social Security Liaisons, nor of the countries it covers: all cross-border agreements publicly available cover ambulatory emergencies with countries immediately surrounding Belgium. [2, 3, 4, 5] There is no evidence of an international agreement applying to public health emergencies from the Federal Public Service Health, Food Chain Safety, and Environment, nor from the Ministry of Agriculture or the Ministry of Defence, nor from the Federal Agency for Food Chain Safety, the Scientific Institute of Public Health, or the National Crisis Centre. [6, 7, 8, 9, 10, 11, 12, 13]

- [1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020
- [2] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. 12 January 2016. "Crisis Management (Gestion de crise)". [<https://www.health.belgium.be/fr/sante/prenez-soin-de-vous/themes-pour-les-patients/soins-de-sante-transfrontaliers/gestion-de-crisis>]. Accessed 15 November 2020
- [3] Belgian First Aid and Support Team. "History (Historique)". [<https://b-fast.be/fr/content/historique>]. Accessed 15 November 2020
- [4] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. 20 March 2007. "Franco-Belgian convention concerning urgent medical care (Convention franco-belge en matière d'aide médicale urgente)". [<https://www.cleiss.fr/docs/cooperation/Belgique-Convention-aide-m%C3%A9dicale-d-urgence-20-03-07.pdf>]. Accessed 15 November 2020
- [5] Centre for European and International Social Security Liaisons (Centre des Liaisons Européennes et Internationales de Sécurité Sociale). "Cross-border cooperation agreements signed between France and Belgium". [https://www.cleiss.fr/docs/cooperation/cc-france-belgique_en.html#a2]. Accessed 15 November 2020
- [6] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020
- [7] Federal Public Service Health, Food Chain Safety, and Environment. "Environment". [<https://www.health.belgium.be/en/environment>]. Accessed 15 November 2020
- [8] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020
- [9] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020
- [10] Ministry of Defence. 2020. "Defence - Medical Component". [<https://www.mil.be/fr/composante-medicale>]. Accessed 15 November 2020
- [11] Federal Agency for Food Chain Safety (AFSCA). 2020. "About AFSCA". [<http://www.afsca.be/professionnels/apropos/>]. Accessed 15 November 2020
- [12] Scientific Institute of Public Health (WIV-ISP). "About Sciensano". [<https://www.sciensano.be/en/about-sciensano>]. Accessed 15 November 2020.
- [13] National Crisis Centre. "Emergency Planning (Planification d'urgence)". [<https://centredecrise.be/fr/planification-durgence>]. Accessed 15 November 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: 99.3

1999

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: 902.91

2017

WHO Global Health Expenditure database

4.4.2 Paid medical leave

4.4.2a

Are workers guaranteed paid sick leave?

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

Current Year Score: 2

2020

World Policy Analysis Center

4.4.3 Healthcare worker access to healthcare

4.4.3a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence of an official policy prioritising healthcare services to healthcare workers who become sick in the performance of their duties during a public health emergency. Publicly available guidance and legislation from the Committee on Bioethics, the Federal Public Service for Employment, and the National Crisis Centre, establishes the responsibility of employers to provide treatment for workers, including healthcare workers, who become sick during the performance of their duties. [1, 2, 3] The Law concerning disciplines, and the Law concerning emergency and intervention plans, explicitly state that all measures must be taken to protect workers, including healthcare workers, but there is no mention of treating workers who become sick in the performance of their duties as a priority. [4, 5] However, the 2009 Belgian emergency operating plan for influenza does state that healthcare workers will receive more effective respiratory masks, and that "it is desirable to prioritise healthcare workers" and to protect their families from the additional risk of contamination they present. [1] There is no additional evidence from the Ministry of Health, Federal Public Health Service, the Research Federation, the Institute of Public Health, or the Belgian National Emergency Management System. [6, 7, 8, 9, 10]

[1] Belgian Advisory Committee on Bioethics. 30 March 2009. "Opinion no. 48 of 30 March 2009 on the Belgian "influenza pandemic" operating plan".

[https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/opinion_48_web.pdf]. Accessed 15 November 2020

[2] Federal Public Service of Employment, Work, and Social Consultation. "Surveillance of workers' health (La surveillance de la santé des travailleurs)". [<http://www.emploi.belgique.be/defaultTab.aspx?id=562>]. Accessed 15 November 2020

[3] National Crisis Centre. "The different emergency plans (Les différents plan d'urgence)".

[<https://centredecrise.be/fr/content/les-differents-plans-durgence>]. Accessed 15 November 2020

[4] Domestic Federal Public Service. Law C?2009/00292, 30 March 2009. "Ministerial circular NPU-4 concerning disciplines (Circulaire ministérielle NPU-4 relative aux disciplines)". [https://centredecrise.be/sites/default/files/cm-mo_npu-4_disciplines.pdf]. Accessed 15 November 2020

[5] Domestic Federal Public Service. Law C 2006/00885, 26 October 2006. "Ministerial circular NPU-1 concerning emergency and intervention plans (Circulaire ministérielle NPU-1 relative aux plans d'urgence et d'intervention)".

[https://centredecrise.be/sites/default/files/cm-mo_npu-1_26_10_2006_plans_durgence-noodplannen.pdf]. Accessed 15 November 2020

[6] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 13 November 2020

[7] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 29 November 2020

[8] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>].

Accessed 29 November 2020

[9] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>].

Accessed 29 November 2020

[10] Belgian National Emergency Management System. "Incident & Crisis Management System" [<http://icmsbelgium.net/>].

Accessed 30 November 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

Belgium has a mechanism in place for communication between public health officials and healthcare workers during public health emergencies. According to the WHO Joint External Evaluation report for Belgium, completed in June 2017, the Federal Public Service (FPS) is responsible for the two-way coordination of communication between technical experts, politicians, the private sector, the media, hospitals, and civil society, as well as within the FPS. [1] The Federal Public Service sets out a communication strategy for public health emergencies, and the National Crisis Centre has published more detailed guides and procedures for communication in crisis settings, outlining roles and responsibilities, teamwork, coordination, organisation, and execution. [2, 3]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 2020

[2] Federal Public Service. "Belgian Civilian Crisis Management Strategy". [https://diplomatie.belgium.be/sites/default/files/downloads/belgian_civilian_crisis_management_strategy_en.pdf]. Accessed 15 November 2020

[3] Belgian National Crisis Centre. April 2015. "Operational Procedure for Crisis Communication (Le Processus Opérationnel de Communication de Crise)". [https://centredecrise.be/sites/default/files/brochure_team_d5_pocc_fr_web_0.pdf]. Accessed 15 November 2020

4.5.1b

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

Yes = 1 , No = 0

Current Year Score: 1

Belgium's communication strategy in case of public health emergency informally encompasses healthcare workers in the public and private sectors. The Federal Public Service (FPS) sets out a broad strategy for two-way communications during public health emergencies with the private sector, government, technical experts in the public and private sector, and other relevant entities, but does not set out specifically the roles of the public and private sectors. [1, 2] The National Crisis Centre builds upon that strategy to assign communication roles to the public and private sectors, mentions that a standard operating procedure (SOP) exists for two-way communication between the public and private sectors, but this is not made available. [3]

[1] World Health Organisation (WHO). 19-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium - Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>].

Accessed 15 November 2020

[2] Federal Public Service. "Belgian Civilian Crisis Management Strategy".

[https://diplomatie.belgium.be/sites/default/files/downloads/belgian_civilian_crisis_management_strategy_en.pdf].

Accessed 15 November 2020

[3] Belgian National Crisis Centre. April 2015. "Operational Procedure for Crisis Communication (Le Processus Opérationnel de Communication de Crise)". [https://centredecrise.be/sites/default/files/brochure_team_d5_pocc_fr_web_0.pdf].

Accessed 15 November 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

Belgium surveys for, monitors, and tracks the number of healthcare, or hospital, acquired infections (HAIs) according to a well-defined protocol. This protocol, "National Surveillance of Healthcare Associated Infections" ("Surveillance Nationale des Infections du Site Opérateur"), is led by Sciensano, the Belgian Institute of Public Health (WIV-ISP). [1] It is based on the American National Healthcare Safety Network and corresponds to the criteria laid out by the European project Hospitals in Europe Link for Infection Control through Surveillance (HELICS). The purpose of the strategy is to furnish hospitals with a standardised protocol and the tools to organise surveillance in the hospital, as well as a standardised method for reporting HAIs, and to collate the information reported by hospitals at the national level to determine the incidence, patterns, and risk factors of HAIs, and to allow for nation-wide follow-up. [2] The WHO Joint External Evaluation, conducted in June 2017, also states that the national surveillances of HAIs is coordinated by the WIV-ISP. [3]

[1] Sciensano. 14 April 2017. "About NSIH (À propos de NSIH)". [http://www.nsih.be/nsih/nsih_fr.asp]. Accessed 15 November 2020

[2] Belgian House of Parliament. September 2010. "Healthcare Acquired Infections (Les maladies nosocomiales)". [<https://www.lachambre.be/kvvcr/showpage.cfm?section=qrva&language=fr&cfm=qrvaXml.cfm?legislat=53&dossierID=53-b021-602-0075-0000201000839.xml>]. Accessed 15 November 2020

[3] World Health Organisation (WHO). 17-23 June 2017. "Joint External Evaluation of IHR Core Capacities of the Kingdom of Belgium: Mission Report". [<https://extranet.who.int/sph/sites/default/files/jeeta/WHO-WHE-CPI-REP-2017.37-eng.pdf>]. Accessed 15 November 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 in Belgium. A clinical trial can only start after receiving a favourable opinion from an Ethics Committee, which operates under the Federal Agency for Medicines and Health Products (FAMHP). [1, 2] This Ethics Committee was mandated by Chapter VIII of the 2004 Law concerning experiments on human beings. [3] The FAMHP also checks all applications for conducting clinical trials to ensure that the trials' protocols are within the Belgian and European laws and decrees. All clinical trials are logged with the FAMHP as well as with the European authorities' database. [1]

[1] Federal Agency for Medicines and Health Products. 10 July 2017. "Clinical trials".

[https://www.famhp.be/en/human_use/medicines/herbal_medicinal_products/research_development/clinical_trials].

Accessed 15 November 2020

[2] Public Health, the Safety of the Food Chain and the Environment (Santé publique, sécurité de la chaîne alimentaire et environnement). Law 2004022505, 30 June 2004. "Royal decree defining measures of execution of the law of 7th of May 2004 concerning experimentation on human persons as far as clinical trials of medication for human beings is concerned (Arrêté royal déterminant des mesures d'exécution de la loi du 7 mai 2004 relative aux expérimentations sur la personne humaine en ce qui concerne les essais cliniques de médicaments à usage humain)".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2004063030&table_name=loi]. Accessed 15 November 2020

[3] Public Health, the Safety of the Food Chain and the Environment (Santé publique, sécurité de la chaîne alimentaire et environnement). Law 2004022376, 18 May 2004. "Law concerning experiments on human beings".

[http://www.ejustice.just.fgov.be/cgi_loi/change_lg.pl?language=fr&la=F&cn=2004050732&table_name=loi]. Accessed 15 November 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 that Belgium has an expedited process by which to approve clinical trials in the event of a public health emergency in any of the laws, decrees, or amendments setting out the legislation for clinical trials on the website of the Federal Agency for Medicines and Health Products, the agency responsible for the approval and registration of new medications and medical devices. [1] However, there is a provision in place in Belgium to grant "conditional approval" for the annual update of influenza vaccines that have already been authorised, but the exact scope of this "conditional approval" is

not discussed. [2] There is no additional evidence from the Ministry of Health, Federal Public Health Service, the Research Federation, the Institute of Public Health, or the Belgian National Emergency Management System. [3, 4, 5, 6, 7]

[1] Federal Agency for Medicines and Health Products. 10 July 2017. "Clinical trials - Legal texts".

[https://www.famhp.be/en/human_use/medicines/herbal_medicinal_products/research_development/clinical_trials].

Accessed 15 November 2020

[2] Federal Agency for Medicines and Health Products. 10 July 2017. "Clinical trials".

[https://www.famhp.be/en/human_use/medicines/herbal_medicinal_products/research_development/clinical_trials].

Accessed 15 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>].

Accessed 13 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 29 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>].

Accessed 29 November 2020

[6] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>].

Accessed 29 November 2020

[7] Belgian National Emergency Management System. "Incident & Crisis Management System" [<http://icmsbelgium.net/>].

Accessed 30 November 2020

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1 , No = 0

Current Year Score: 1

There is a government agency responsible for approving new medical countermeasures for humans in Belgium. The Federal Agency for Medicines and Health Products is responsible for evaluating the quality, safety and efficacy of medicines and medical devices for human and veterinary use. [1]

[1] Federal Agency for Medicines and Health Products (FAMHP). 10 October 2017. "About the FAMHP".

[<https://www.famhp.be/en/famhp>]. Accessed 15 November 2020

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of the existence of an expedited process for approving medical countermeasures in case of a public health emergency in the laws, decrees, or amendments detailing the legislation surrounding the use of medical countermeasures from the website of the Federal Agency for Medicines and Health Products, the agency responsible for the approval and registration of new medications and medical devices. [1, 2] There is no additional information from the Ministry

of Health, the Federal Public Health Service, the Research Federation, or the Institute of Public Health. [3, 4, 5, 6]

[1] Federal Agency for Medicines and Health Products. 10 October 2017. "About the FAMHP".

[<https://www.famhp.be/en/famhp>]. Accessed 15 November 2020

[2] Federal Agency for Medicines and Health Products. 10 July 2017. "Clinical trials - Legal texts".

[https://www.famhp.be/en/human_use/medicines/herbal_medicinal_products/research_development/clinical_trials].

Accessed 15 November 2020

[3] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>].

Accessed 13 November 2020

[4] Federal Public Service for Public Health, Food Chain Safety and Environment (Service public fédéral santé publique, sécurité de la chaîne alimentaire et environnement). 2020. "About us (A propos de nous)".

[<https://www.health.belgium.be/fr/a-propos-de-nous>]. Accessed 29 November 2020

[5] Scientific Research (Recherche Scientifique). "Missions". [<http://www.recherchescientifique.be/index.php?id=2745>].

Accessed 29 November 2020

[6] Sciensano. 2020. "Infectious Diseases" [<https://www.healthybelgium.be/en/health-status/54-infectious-diseases>].

Accessed 29 November 2020

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that pandemics are integrated into the national risk reduction strategy or of a standalone national disaster risk reduction strategy for pandemics in Belgium. While Belgium adopted the Sendai Framework for Disaster Risk Reduction (DRR) and appointed a national focal point within the Ministry of Foreign Affairs in charge of convening all relevant parties regularly, there is no mention of pandemics in the National Platform Description of Belgium's DRR, nor is there any evidence of a standalone pandemics DRR strategy. [1, 2, 3] The Federal Public Service Health, Food Chain Safety, and Environment makes no mention of the DRR framework let alone of a plan for pandemics, and the National Crisis Centre also does not mention any plan for pandemics among its list of emergency plans. [4, 5]

[1] Federal interior public service (Service publique fédéral intérieur). Law 2006000192, 16 February 2006. "Royal decree concerning emergency and intervention plans (Arrêté royal relatif aux plans d'urgence et d'intervention)".

[http://www.etaamb.be/fr/arrete-royal-du-16-fevrier-2006_n2006000192.html]. Accessed 15 November 2020

[2] United Nations Office for Disaster Risk Reduction. "Belgium - Institutional Structure / National Platform Description".

[<https://www.unisdr.org/partners/countries/bel>]. Accessed 15 November 2020

[3] Belgium - Informations et services officiels. 2020. "Epidemics (Épidémies)".

[https://www.belgium.be/fr/sante/risques_pour_la_sante/epidemies]. Accessed 15 November 2020

[4] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>].

Accessed 15 November 2020

[5] National Crisis Centre (Crisiscentrum). "Emergency Planning (Planification d'Urgence)".

[<https://centredecrise.be/fr/planification-durgence>]. Accessed 15 November 2020

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 2

There is evidence that Belgium has cross-border agreements with neighbouring countries with regards to public health emergencies, and there is no evidence of any gap in implementation. As a member of the European Union (EU), Belgium is party to the EU's policy on the cross-border preparedness for and response to health threats and emergencies. The EU's Decision 1082/2013/EU on serious cross-border threats to health set the framework for preparedness and response to health emergencies. It works to ensure the inter-operability of national health emergency plans through coordination mechanisms, and does not show any gaps in implementation. [1] In addition, the Sendai Framework national focal points for Belgium, the Netherlands, Luxembourg, and the German border region of Nordrhein-Westfalen meet every other month within the scope of the Disaster Risk Reduction (DRR) strategy, however, there is no evidence this covers public health emergencies. [2]

[1] European Commission. Crisis Preparedness and Response. "Crisis Management".

[https://ec.europa.eu/health/preparedness_response/crisis_management_en] Accessed 17 November 2020

[2] United Nations Office for Disaster Risk Reduction. "Belgium - Institutional Structure / National Platform Description".

[<https://www.unisdr.org/partners/countries/bel>]. Accessed 17 November 2020

5.2.1b

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

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

Current Year Score: 2

There is evidence that Belgium has in place cross-border protocols as part of a regional group with regards to animal health emergencies, and there is no evidence of gaps in implementation. As Belgium is part of the European Union (EU), it participates in the cross-border agreements set out by the EU regarding animal health, both in terms of preparedness and prevention of infectious animal diseases and of responsiveness to outbreaks, to make joint action easier and stronger. These agreements are the fruit of a meeting of the Working Party of Chief Veterinary Officers (CVOs) in Europe, in June 2017, which determined what areas of emergency preparedness were most in need of updating, and what priorities were the most urgent. [1] The agreements cover areas that need improving and standardising across the EU, including early warning systems, risk assessment, awareness, and contingency plans among others. [2] It was determined that strong and early warning systems in particular are vital within the EU space, and that all Member States should continue and reinforce surveillance activities to keep early warning systems effective, and put in place regular exchanges of surveillance information. The agreements also cover the importance of the exchange of information and data between Member States to anticipate and respond to outbreaks as quickly as possible. [1] There is no evidence of gaps in implementation.

[1] General Secretariat of the European Union Council. 29 June 2017. "Working Party of Chief Veterinary Officers (21-23 June 2017) - Partial outcome of proceedings". [<http://data.consilium.europa.eu/doc/document/ST-10676-2017-INIT/en/pdf>]. Accessed 17 November 2020

[2] EU Monitor. 30 June 2017. "Animal health: a common way forward on emergency preparedness". [https://www.eumonitor.eu/9353000/1/j9vvik7m1c3gyxp/vkfifam2ugzi?ctx=vk08kutn41zh&tab=1&start_tab1=15]. Accessed 17 November 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 evidence that Belgium has allocated national funds to improving the capacity to address epidemic threats within the past three years. There is no evidence of such a commitment from the Ministry of Health or the Ministry of Agriculture, nor from the Federal Government or the Prime Minister's office. [1, 2, 3, 4, 5] The Belgian Ministry of Foreign Affairs mentions commitment to research into COVID-19, but there is no evidence that this is part of a larger plan to invest in improving the national capacity to address epidemic threats. [6]

[1] Federal Public Service Health, Food Chain Safety, and Environment. "Health". [<https://www.health.belgium.be/en/health>]. Accessed 15 November 2020

[2] Flanders Department of Agriculture and Fisheries. "Department of Agriculture and Fisheries". [<https://lv.vlaanderen.be/fr>]. Accessed 29 November 2020

[3] Wallonia Agriculture. "Wallonia Agricultural Portal" [<https://agriculture.wallonie.be/accueil>]. Accessed 29 November 2020

[4] The Federal Government. 2020. "News (Actualités)" [<https://www.belgium.be/fr/actualites>]. Accessed 18 November 2020

[5] The Prime Minister. 2020. "The Prime Minister" [https://www.belgium.be/fr/la_belgique/pouvoirs_publics/autorites_federales/gouvernement_federal/premier_ministre]. Accessed 18 November 2020

[6] Foreign Affairs, Foreign Commerce, and Cooperation for Development. 2016. "Belgium allocates 5 million euros for CEPI research into COVID-19".

[https://diplomatie.belgium.be/en/newsroom/news/2020/belgium_allocates_5_million_euros_cepi_research_covid_19]. Accessed 15 November 2020

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 0

While there is evidence that Belgium has earmarked a budget for health-related emergencies and interventions, there is no evidence of a publicly identified special emergency public financing mechanism or funds according to the Belgian Ministry of Foreign Affairs. [1, 2, 3] The law on emergency and intervention plans lays out clearly the different types of interventions with which Belgium can respond to emergencies, but makes no mention of a special emergency fund for public health crises. [4] The National Crisis Centre also defines the response to emergencies, including public health emergencies, but there is no evidence of a special emergency fund. [5, 6] Examples of Belgium's response to past public health threats also make no mention of a special emergency fund for public health crises according to the Belgian Advisory Committee on Bioethics. [7] Belgium is not eligible for International Development Association (IDA) support, nor for the World Bank Pandemic Emergency Financing Facility (PEF). [8, 9] There is evidence that Belgium has released funds to address the COVID-19 pandemic and its repercussions in Belgium, but there is no evidence of a special emergency public financing mechanism or funds. [10]

[1] Kingdom of Belgium Foreign Affairs, Foreign Trade, and Development Cooperation. 2016. "B-FAST".

[https://diplomatie.belgium.be/en/about_the_organisation/specific_services/b-fast]. Accessed 17 November 2020

[2] Kingdom of Belgium Foreign Affairs, Foreign Trade, and Development Cooperation. 21 November 2016. "Belgium and World Health Organisation sign cooperation agreement".

[https://diplomatie.belgium.be/en/newsroom/news/2016/belgium_and_world_health_organisation_sign_cooperation_agreement]. Accessed 17 November 2020

[3] Thoreau F, Cheneviere C, Rossignol N. 2012. Public action and governmental responsibility: management of influenza

- A(H1N1) in 2009 (Action publique et responsabilité gouvernementale : la gestion de la grippe A(H1N1) en 2009)".
[https://orbi.uliege.be/bitstream/2268/115248/1/ch2138-2139%20A%28H1N1%29%20-%20Thoreau%20Cheneviere%20Rossignol.pdf]. CRISP, Courrier hebdomadaire n° 2138-2139. Accessed 17 November 2020
- [4] Home Federal Public Service. 16 February 2016. "Royal decree concerning emergency and intervention plans (Arrêté royal relatif aux plans d'urgence et d'intervention)". [https://centredecrise.be/sites/default/files/ar-kb_16_02_2006_plans_durgence-noodplannen.pdf]. Accessed 17 November 2020
- [5] National Crisis Centre. "The different emergency plans (Les différents plans d'urgence)". [https://centredecrise.be/fr/content/les-differents-plans-durgence]. Accessed 17 November 2020
- [6] National Crisis Centre. "Crisis management (Gestion de crise)". [https://centredecrise.be/fr/gestion-de-crise]. Accessed 17 November 2020
- [7] Belgian Advisory Committee on Bioethics. 30 March 2009. "Opinion no. 48 of 30 March 2009 on the Belgian 'influenza pandemic' operating plan".
[https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/opinion_48_web.pdf]. Accessed 17 November 2020
- [8] Pandemic Emergency Financing Facility (PEF). December 2017. "Operational Brief for Eligible Countries".
[http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf]. Accessed 17 November 2020
- [9] International Development Association (IDA), World Bank Group. 2020. "Borrowing Countries".
[http://ida.worldbank.org/about/borrowing-countries]. Accessed 17 November 2020
- [10] Belgian Government. 30 April 2020. "Belgian Stability Programme 2020" [https://ec.europa.eu/info/sites/info/files/2020-european-semester-stability-programme-belgium_en.pdf]. Accessed 17 November 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: 1

There is evidence that senior leaders have made a public commitment either to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years. Belgium joined the Coalition for Epidemic Preparedness Innovation (CEPI) in 2017, and as such, the Belgian Deputy Prime Minister and Minister for Development Cooperation, Alexander De Croo, has committed US\$500,000 to the development of vaccines all over the world, following on from the work towards limiting the spread of the Ebola epidemic and bolstering preparedness in the affected countries. The press release includes the following quote from Minister De Croo: " Our country has a strong track record in terms of combating tropical diseases. This is demonstrated once again by the roles played in the new vaccination fund by pioneering Belgians such as Professor Piot and Dr. Paul Stoffels. Belgian intends to support them in their important work. Fatal epidemics are one of the most significant global threats. This became apparent two years ago during the Ebola epidemic. By investing in the development of new and vital vaccines, we can save thousands of lives ". [1, 2] The Flemish Minister of Science, Phillippe Muyters, also committed to a €2.5 million investment in domestic outbreak research in 2018 in the form of a new outbreak research team based at the Institute of Tropical Medicine in Antwerp to bolster domestic

preparedness and responsiveness in the event of an outbreak, stating "The Ebola outbreak has shown that reacting to an outbreak only is not good enough. We need to be prepared before an outbreak occurs. As Flemish government we are happy to contribute to this effort". [3] Finally, Belgium is regularly involved in health emergencies in developing countries, for example by supporting partners in the Democratic Republic of the Congo and in Haiti between 2013 and 2018 during the Ebola and cholera outbreaks, by co-funding and leading a trial for an Ebola vaccine in 2016 and 2017, by contributing Belgian public development aid to monitor the quality of medical countermeasures in developing countries in 2017, or by teaming up with the Bill & Melinda Gates Foundation to push for the elimination of Human African Trypanosomiasis (HAT, also known as sleeping sickness) also in 2017. [1, 3, 4]

[1] Kingdom of Belgium Foreign Affairs, Foreign Trade, and Development Cooperation. 27 February 2017. "Belgium supports the global alliance against fatal infectious diseases".

[https://diplomatie.belgium.be/en/newsroom/news/2017/belgium_supports_global_alliance_against_fatal_infectious_diseases]. Accessed 30 November 2020

[2] Coalition for Epidemic Preparedness Innovations. 2018. "What is CEPI?". [<http://cepi.net/>]. Accessed 30 November 2020

[3] Institute of Tropical Medicine Antwerp. 23 April 2018. "ITM outbreak research team prepares for the next epidemic".

[<https://www.itg.be/E/Article/outbreak-research-team-at-institute-of-tropical-medicine-prepares-for-next-epidemic>].

Accessed 30 November 2020

[4] Kingdom of Belgium Foreign Affairs, Foreign Trade, and Development Cooperation. "Newsroom".

[<https://diplomatie.belgium.be/en/Newsroom/overview?tags=257>]. Accessed 30 November 2020

5.5.4b

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

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

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

Current Year Score: 1

There is evidence that Belgium has provided other countries with financing to improve capacity to address epidemic threats, and there is evidence that Belgium requested financing or technical support from donors to improve the country's own domestic capacity to address epidemic threats. The 2018 commitment to invest €2.5 million in domestic outbreak research in the form of a new outbreak research team based at the Institute of Tropical Medicine in Antwerp to bolster domestic preparedness and responsiveness in the event of an outbreak has been upheld. [1] Past commitments made between 2013 and 2016, concerning supporting partners in the Democratic Republic of the Congo and in Haiti to address Ebola and cholera outbreaks; co-funding and leading a trial for an Ebola vaccine; contributing Belgian public development aid to monitor the quality of medical countermeasures in developing countries; and teaming up with the Bill & Melinda Gates Foundation to push for the elimination of Human African Trypanosomiasis (HAT, also known as sleeping sickness), have all been met. [1, 2, 3] According to the Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker, Belgium has disbursed over \$20 million between 2017 and 2020; however there is insufficient information in the tracker to determine if funding was used for preparedness. [4]

[1] Institute of Tropical Medicine Antwerp. 23 April 2018. "ITM outbreak research team prepares for the next epidemic".

[<https://www.itg.be/E/Article/outbreak-research-team-at-institute-of-tropical-medicine-prepares-for-next-epidemic>].

Accessed 23 November 2020

[2] Kingdom of Belgium Foreign Affairs, Foreign Trade, and Development Cooperation. 27 February 2017. "Belgium supports the global alliance against fatal infectious diseases".

[https://diplomatie.belgium.be/en/newsroom/news/2017/belgium_supports_global_alliance_against_fatal_infectious_diseases]. Accessed 23 November 2020

[3] Kingdom of Belgium Foreign Affairs, Foreign Trade, and Development Cooperation. "Newsroom".

[<https://diplomatie.belgium.be/en/Newsroom/overview?tags=257>]. Accessed 23 November 2020

[4] Georgetown Infectious Disease Atlas (GIDA) Global Health Security Tracker. 2020. "Belgium"

[<https://tracking.ghscosting.org/details/20/recipient>] Accessed 23 November 2020

5.5.4c

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

Yes = 1, No = 0

Current Year Score: 1

2021

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

5.6 COMMITMENT TO SHARING OF GENETIC AND BIOLOGICAL DATA AND SPECIMENS

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

5.6.1a

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

Yes = 1, No = 0

Current Year Score: 0

There does not appear to be a publicly available plan for sharing genetic data, epidemiological data, clinical specimens, and/or isolated specimens with international organizations and/or other countries that goes beyond influenza. There is no evidence of such a plan in the Belgian Science Policy, nor from the Research Institute for Agriculture, Fisheries, and Food, or the Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. [1, 2, 3, 4] The Federal Public Service for Public Health, the Safety of the Food Chain and the Environment, and the Institute for Public Health, make it clear that data from the Health Interview Surveys (HIS) are made available online. [4, 5] There is also evidence that Belgium shares health data within-country as well as with international organisations upon request, but this does not count as a full policy or plan for sharing data. [6]

[1] Belgian Science Policy. 2018. "European Cooperation (Coopération Européenne)".

[http://www.belspo.be/belspo/coordination/euCoor_fr.stm]. Accessed 15 November 2020

[2] Belgian Science Policy. 2018. "Extra-European Cooperation (Coopération extra-européenne)".

[http://www.belspo.be/belspo/coordination/extra_euCoor_fr.stm]. Accessed 15 November 2020

[3] Research Institute for Agriculture, Fisheries, and Food. 24 November 2017. "2018, Year of Data in Agriculture".

[<https://www.ilvo.vlaanderen.be/language/en-US/EN/Press-and-Media/All->

media/ArticleType/ArticleView/ArticleID/4765.aspx#.W7iZkVJoQWo]. Accessed 15 November 2020

[4] Federal Public Service for Public Health, the Safety of the Food Chain and the Environment. 18 November 2016. "One World, One Health". [<https://www.health.belgium.be/en/our-international-activities>]. Accessed 15 November 2020

[5] Sciensano. 2020. "Health Interview Survey 2018, Belgium". [<https://his.wiv-isp.be/SitePages/Home.aspx>]. Accessed 15 November 2020

[6] Brussels Health Network. 2020. "Brussels Health Network". [<http://ehealth.brussels/en/projets/brussels-gezondheids-netwerk/>]. Accessed 15 November 2020

5.6.1b

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence that Belgium has not shared influenza samples according to the Pandemic Influenza Preparedness (PIP) framework, neither from the World Health Organisation nor from the the European Centre for Disease Prevention and Control. [1, 2]

[1] Joint World Health Organisation (WHO) and European Centre for Disease Prevention and Control (ECDC). 2020. "2020/21 season overview". [<http://flunewseurope.org/>]. Accessed 17 November 2020

[2] World Health Organisation (WHO). 2020. "Seasonal Influenza - Surveillance and lab work". [<https://www.euro.who.int/en/health-topics/communicable-diseases/influenza/seasonal-influenza/surveillance-and-lab-network>]. Accessed 17 November 2020

5.6.1c

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

Yes = 0, No = 1

Current Year Score: 1

There is no evidence from the WHO or media outlets that Belgium has withheld pandemic pathogen samples of any kind, including COVID-19, in the past two years. [1, 2, 3]

[1] Global Health Security Initiative (GHSI). 24 February 2017. "Publications and collaboration". [<http://ghsi.ca/publications/>]. Accessed 17 November 2020

[2] United Nations Environment Programme - Convention on Biological Diversity. "Belgium - Country Profile". [<https://www.cbd.int/countries/default.shtml?country=be>]. Accessed 17 November 2020

[3] World Health Organisation (WHO). 2020. "Belgium - News". [http://www.euro.who.int/en/countries/belgium/news/news/news?root_node_selection=71327]. Accessed 17 November 2020

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 3

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 76

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 3

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: 2

2021

Economist Intelligence

6.1.4b

What is the level of illicit arms flows within the country?

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

Current Year Score: 1

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

2008-2018

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

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.95

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: 0.1

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

There is evidence that informal employment accounts for less than 25% of the total employment in Belgium. The most recent data, from 2015, put the figure of employment in the informal sector at 17.8%, and data from 2013 give an estimate of between 20-24%. [1, 2] There are no more recent data on shadow sector employment in Belgium, neither from the World Bank, nor from other analyses of employment data. [3, 4, 5]

[1] The Global Economy.com. 2020. "Belgium: shadow economy"

[https://www.theglobaleconomy.com/Belgium/shadow_economy/] Accessed 17 November 2020

[2] Rezaei, S., Goli, M. and Dana, L-P. (2013) 'An empirical study of the underground economy in the Kingdom of Belgium'

[https://www.researchgate.net/publication/264823537_An_empirical_study_of_the_underground_economy_in_the_Kingdom_of_Belgium] Int. J. Business and Globalisation, Vol. 11, No. 2, pp.159-170. Accessed 17 November 2020

[3] The World Bank. 2020. "Informal employment (% of total non-agricultural employment) - Belgium"

[<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS?end=2018&locations=BE&start=2018&view=map>]. Accessed 17 November 2020

[4] Statista. 2020. "Belgium: Distribution of employment by economic sector from 2010 to 2020"

[<https://www.statista.com/statistics/328833/employment-by-economic-sector-in-belgium/>] Accessed 17 November 2020
[5] Moody's Analytics. 2020. "Belgium - Labor force" [<https://www.economy.com/belgium/labor-force>] Accessed 17 November 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: 0.27

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: 4

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: 98.04

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: 0.13

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: 4

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: 81.6

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: 319.5

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 19.01

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 25

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 22.1

2016

WHO

6.5.2 Access to potable water and sanitation

6.5.2a

Percentage of homes with access to at least basic water infrastructure

Input number

Current Year Score: 99

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 99

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: 4096.09

2018

WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a

Trust medical and health advice from the government

Share of population that trust medical and health advice from the government , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018

6.5.4b

Trust medical and health advice from medical workers

Share of population that trust medical and health advice from health professionals , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 2

2018

Wellcome Trust Global Monitor 2018