Czech Republic

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

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

The Czech Republic has a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens. In 2019, the Czech Republic adopted the National Antibiotic Programme Action Plan for 2019-2022 (AP NAP) [1, 2, 3 4]. This plan includes the intent to monitor and analyze antibiotic resistance, to raise public awareness of AMR, and to ultimately prevent the spread of resistant pathogens [3]. More specifically, the AP NAP prioritizes 11 concrete targets for development: surveillance of antibiotic resistance in the human and veterinary fields; supervision of the use of antibiotics in the human and veterinary fields; practices for the use of antibiotics and control of antibiotic resistance; indicators of the quality of antibiotics used; promoting antibiotic prevention and control of antibiotic resistance in primary and outpatient care; implementation of hospital antibiotic programmes; improving awareness and enhancing co-responsibility of the general public whilst maintaining antibiotic efficacy and reducing the spread of antibiotic resistance; innovation of the activities of antibiotic centers; information support and promotion of NAP activities; training physicians and healthcare professionals in the prudent use of antibiotics and control of antibiotic resistance; and focus on healthcare-associated infections [3]. The NAP includes plans on how to collect data on AMR pathogens, for analyzing the data on AMR pathogens and indeed for presenting findings internally for policy and decision-making [3].

[1] National Institute of Public Health. "National Reference Laboratory for antibiotics" ("Národní referenčn laborato? pro antibiotika"). [http://www.szu.cz/narodni-referencni-laborator-pro-antibiotika] Accessed 14 November 2020.
[2] National Reference Centre for Healthcare Related Infections. [http://www.nrc-hai.cz/?q=node/121] Accessed 2 November 2020
[3] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 9 November 2020.
[4] National Insistute of Public Health. "National Antibiotic Programme Action Plan for 2019-2022" ("Akční plán Národního antibiotického programu pro období 2019-2022"). [https://www.mzcr.cz/wp-content/uploads/wepub/7725/36701/Ak%C4%8Dn%C3%AD%20pl%C3%A1n%20NAP%202019-22.pdf] Accessed 20 November 2020.

1.1.1b

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

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

Current Year Score: 1

The Czech Republic has a national laboratory system which tests for at least four priority AMR pathogens. The National Institute of Public Health manages a network of laboratories (National Reference Laboratories) in the Czech Republic that test for the antimicrobial resistance of E. coli, K. pneumonia, S. aureus, and S. pneumoniae, and they work in collaboration with the European Antimicrobial Resistance Surveillance Network (EARS-Net), mainly through the sharing of data and information on surveillance [1, 2]. The Czech Republic also established a Resistance Monitoring Group (PSMR) in 1990, which receives objective, independent data on the current status and trends of antibiotic resistance to major bacterial agents of infectious diseases through surveillance, and systematic and sustained collection of antibiotic resistance data, and analysis of these data, providing evidence for antibiotic policy [3]. Since 2011, the PSMR brings together representatives of 54 microbiological laboratories of the Czech Republic, whose catchment area covers approximately 90% of the Czech population. Participation in the PSMR is voluntary and members of the PSMR are eligible for individual projects of the laboratory. All collected data is collected in a routine daily routine under the conditions of good laboratory practice [3].

[1] National Institute of Public Health. "National Reference Laboratory for antibiotics" ("Národní referenčn laborato? pro antibiotika"). [http://www.szu.cz/narodni-referencni-laborator-pro-antibiotika] Accessed 14 November 2020.
[2] National Institute of Public Health. "EARS-Net" ("EARS-Net"). [http://www.szu.cz/ears-net-4] Accessed 14 November 2020.
[3] National Institute of Public Health. "Resistance Monitoring Working Group - PSMR" ("Pracovní skupina pro monitorování rezistence - PSMR"). [http://www.szu.cz/pracovni-skupina-pro-monitorovani-rezistence-psmr] Accessed 15 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 public evidence that the government is conducting environmental detection and surveillance activities for antimicrobial residues or AMR organisms. The State Veterinary Institute's laboratory in Jihlava, established by the Czech Ministry of Agriculture, conducts bacteriological examinations and surveillance of drinking water, surface water, and waste water, including conducting microbiological and chemical analyses of sewage, compost and biodegradable waste, in line with Decree No. 252/2004 Coll, which lays down hygiene requirements for drinking and hot water and the frequency and extent of drinking water control [1, 2, 3]. The decree is centered mostly around analyses of drinking water, but this includes water in reservoirs and treatment plants, and lists several microbiological indicators, such as Legionella spp., Escherichia Coli, and Pseudomonas aeruginosa [3]. However, it does not explicitly mention AMR strains or antimicrobial residues [3]. Such evidence is absent from the websites of the Ministry of Health, National Institute of Public Health, Ministry of the Environment, Ministry of Agriculture and from the National Antibiotic Program Action Plan (AP NAP) for 2019–2022 [4, 5, 6, 7, 8]. Similarly to the AP NAP 2011–2013, the 2019–2022 AP NAP sets out an intent to monitor and analyze antibiotic resistance, to raise public awareness of AMR, and to ultimately prevent the spread of resistant pathogens [4].

[1] State Veterinary Institute Jihlava. "Overview of the Department of Food Hygiene". [https://www.svujihlava.cz/231-prehled-vysetreni.html#mikrobiologie] Accessed 19 November 2020.
[2] State Veterinary Institute Jihlava. "Chemistry" ("Chemie"). [https://www.svujihlava.cz/241-chemie.html#vody] Accessed 19 November 2020.
[3] Ministry of Health of the Czech Republic. 1.5.2004. Decree No. 252/2004 Coll., laying down hygiene requirements for drinking and hot water and the frequency and extent of drinking water control (Vyhláška, kterou se stanoví hygienické požadavky na pitnou a teplou vodu a četnost a rozsah kontroly pitné vody). [https://www.zakonyprolidi.cz/cs/2004-252] Accessed 9 December 2020.

[4] National Insistute of Public Health. "National Antibiotic Programme Action Plan for 2019-2022" ("Akční plán Národního antibiotického programu pro období 2019-2022"). [https://www.mzcr.cz/wp-content/uploads/wepub/7725/36701/Ak%C4%8Dn%C3%AD%20pl%C3%A1n%20NAP%202019-22.pdf] Accessed 20 November 2020.
[5] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 9 November 2020.
[6] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 9 November 2020.
[7] Ministry of the Environment of the Czech Republic. [https://www.mzp.cz/] Accessed 9 November 2020.
[8] National Institute of Public Health. [http://www.szu.cz/] Accessed 9 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

The Czech Republic legally requires prescriptions for antibiotic use for humans, and there is no evidence of gaps in enforcement. It is stipulated explicitly in Decree 329/2019 Coll. on Prescription of Medicinal Products, Prescriptions When Providing Medical Care – and confirmed on the websites of the Czech Pharmaceutical Chamber and in the National Antibiotic Programme Action Plan for 2019-2022 – that antibiotics may only be legally acquired upon prescription [1, 2, 3, 4, 5]. Decree 329/2019 further defines antibiotics to be medicine with active ingredients belonging to the six most commonly used antibiotic groups in the Czech Republic (penicillins, cephalosporins, quinolones, macrolides, lincosamides and streptogramis). No evidence of people buying antibiotics without prescription has been found. [6]

[1] Ministry of Health of the Czech Republic. "Medicine" ("Léčiva"). [https://www.mzcr.cz/prehled-pravnich-predpisu-v-oblasti-leciv/l] Accessed 19 November 2020.
[2] State Institute for Drug Control. "Legislation of the Czech Republic" ("Legislativa České republiky"). [http://www.sukl.cz/sukl/legislativa-ceske-republiky] Accessed 19 November 2020.
[3] The Czech Pharmaceutical Chamber. 16 November 2015. "Antibiotics are safer for the sixth time" ("Antibiotika bezpečněji již pošesté"). [https://www.lekarnici.cz/Pro-verejnost/Informace-pro-verejnost/Antibiotika-bezpecneji-jiz-poseste.aspx] Accessed 20 September 2018.
[4] National Insistute of Public Health. "National Antibiotic Programme Action Plan for 2019-2022" ("Akční plán Národního antibiotického programu pro období 2019-2022"). [https://www.mzcr.cz/wp-content/uploads/wepub/7725/36701/Ak%C4%8Dn%C3%AD%20pl%C3%A1n%20NAP%202019-22.pdf] Accessed 20 November 2020.
[5] Ministry of Health of the Czech Republic. 2008. Decree No. 329/2019 Coll., on the prescription of medicinal products, on the prescription and rules on the use of medical prescriptions (Vyhláška o předepisování léčivých přípravků při poskytování zdravotních služeb). [https://www.zakonyprolidi.cz/cs/2019-329] Accessed 20 September 2018.
[6] European Antibiotics Awarness day. "Key information for public." ("Klíčové informace pro veřejnost"). [https://antibiotic.ecdc.europa.eu/cs/get-informed/key-messages/klicove-informace-pro-verejnost-samolecba-antibiotiky] Accessed 20 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: 0

There is insufficient evidence of legislation or regulation published online which explicitly stipulates that the use of antibiotics for animals requires prescription. This includes Decree No. 344/2008 on the Use, Prescription and Dispensing of Medicinal Products in the Provision of Veterinary Care (2008), which does not explicitly attach the requirement of a prescription to the acquisition and use of antibiotics for animals [1]. The Decree does allude to restrictions on antibiotics, but does not stipulate that prescriptions are required for them [1]. There is also no such regulation published on the sites of the Czech Ministry of Agriculture and the Institute for State Control of Veterinary Biologicals and Medicines (USKVBL), which purports to provide all information on the marketing authorisation of veterinary medicinal products in the Czech Republic [2, 3]. However, the State Veterinary Administration (SVS) of the Czech Republic indicates that the only legal way a breeder can access antimicrobials is through a licensed veterinarian [4]. Furthermore, in 2006, regulations tightened in line with EU law, prohibiting the use of antibiotics as growth hormones in animal feed [4].

[1] Parliament of the Czech Republic. 15.9.2008. Decree No. 344/2008, On the use, prescription and dispensing of medicinal products in the provision of veterinary care (o používání, předepisování a výdeji léčivých přípravků při poskytování veterinárních péče). [https://www.zakonyprolidi.cz/cs/2008-344/zneni-20110601]. Accessed 27 November 2020.
[2] Ministry of Agriculture of the Czech Republic. "Legislation of the Czech Republic" ("Legislativa CR"). [http://eagri.cz/public/web/mze/dotace/legislativa/legislativa-cr/] Accessed 22 November 2020.
[3] Institute for the State Control of Veterinary Biologicals and Medicines. "Authorisation and Approval" ("Registrace a schalování"). [http://www.uskvbl.cz/cs/registrace-a-schvalovani] Accessed 22 November 2020.
[4] State Veterinary Administration. "The JRC supports the responsible use of veterinary antibiotics" ("SVS podporuje zodpovědné užívání veterinárních antibiotik"). [https://www.svscr.cz/svs-podporuje-zodpovedne-uzivani-veterinarnich-antibiotik/] Accessed 22 November 2020.

1.2 ZOONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic has national laws on zoonotic diseases. Decree No. 356/2004 Coll. on Monitoring of Zoonoses and Zoonotic Agents includes measures for the prevention and control of diseases transmittable from animals to humans, including general principles for the monitoring of zoonoses and details on the exchange of information and National Reference Laboratories [1]. The decree prescribes the monitoring of the following zoonoses: brucellosis, campylobacteriosis, echinococcosis, listeriosis, salmonellosis, trichinellosis, tuberculosis caused by Mycobacterium bovis, and verotoxigenic Escherichia coli. [1] It also says that the following zoonoses should be monitored when the epidemiological situation requires it: Calicia virus, hepatitis A, influenza, rabies, porcine arthropods, borreliosis, botulism, leptospirosis, psittacosis, tuberculosis, vibriosis, yersinosis, anisacharasis, cryptosporidiosis, cysticercosis, and toxoplasmosis [1]. The decree stipulates steps to be taken in general monitoring, data sharing, risk analysis, some functions of National Reference Laboratories, and exchange of information [1]. The decree also includes requirements of "control strategies that could be used to prevent or minimise the transmission of zoonotic agents to the human population", which are carried through from Decree No. 299/2003 On Measures for Prevention and Control of Diseases and Diseases Transportable from Animals to Humans [1]. Decree

No.299/2003 outlines several aspects of such control strategies, such as the responsibilities of the Regional Veterinary Administration to provide markings and warnings to the public, as well as cooperate with local media, to ensure any incidence of zoonotic outbreak is enclosed and controlled within the area, and so that the risk of human contraction is minimised [2].

[1] Ministry of Agriculture of the Czech Republic. 12.6.2004. Decree No. 356/2004 Coll. On the monitoring of zoonoses and zoonotic agents and amending Decree No. 299/2003 Coll. On measures for the prevention and control of animal diseases and diseases communicable to animals Section 10 (Vyhláška ?. 356/2004 Sb., o sledování (monitoringu) zoonáz a původců zoonáz a o změně vyhlášky. 299/2003 Sb., o opatřeních pro předcházení a zdolávání nákaz a nemocí přenosných ze zvířat na člověka 10). [http://eagri.cz/public/web/mze/legislativa/pravni-predpisy-mze/tematicky-prehled/100051326.html] Accessed 25 November 2020.
[2] Ministry of Agriculture of the Czech Republic. 17.9.2003. Decree No. 299/2003 Coll., on measures for the prevention and control of diseases and diseases transmissible from animals to humans (Vyhláška o opatřeních pro předcházení a zdolávání nákaz a nemocí přenosných ze zvířat na člověka). [https://www.zakonyprolidi.cz/cs/2003-299] Accessed 9 December 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the Czech Republic has a strategy documents that include measures for risk identification and reduction for zoonotic disease spillover events from animals to humans. The websites of the Ministry of Health and the Ministry of Agriculture do not disclose any evidence to suggest that the Czech Republic has such a strategy [1, 2].

[1] Ministry of Agriculture of the Czech Republic. [http://eagri.cz] Accessed 21 January 2021.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz] Accessed 21 January 2021.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 1

There is Czech national legislation that accounts for the surveillance and control of multiple zoonotic pathogens of public health concern. Under annex 1 of Decree No. 356/2004 Coll. on the Monitoring of Zoonoses and Zoonotic Agents, the Ministry of Agriculture provides a substantive list of viral, bacterial and parasitic zoonoses that are to be monitored (some according to the epidemiological situation) [1]. The decree includes the following zoonoses to be monitored constantly: brucellosis, campylobacteriosis, echinococcosis, listeriosis, salmonellosis, trichinellosis, tuberculosis caused by Mycobacterium bovis, and verotoxigenic Escherichia coli. Also listed are zoonoses and zoonotic agents to be monitored according to the epidemiological situation: calicia virus, hepatitis A, influenza, rabies, porcine arthropods, borreliosis, botulism, leptospirosis, psittacosis, tuberculosis, vibriosis, yersinosis, anisacharasis, cryptosporidiosis, cysticercosis, and toxoplasmosis [1]. The decree stipulates steps to be taken in general monitoring, data sharing, risk analysis, some functions of National Reference Laboratories, and exchange of information [1]. The decree also includes requirements of "control

strategies that could be used to prevent or minimise the transmission of zoonotic agents to the human population", which are carried through from Decree No. 299/2003 On Measures for Prevention and Control of Diseases and Diseases transportable from Animals to Humans [2]. Decree No.299/2003 outlines several aspects of such control strategies, such as the responsibilities of the Regional Veterinary Administration to provide markings and warnings to the public, as well as cooperate with local media, to ensure any incidence of zoonotic outbreak is enclosed and controlled within the area, and so that the risk of human contraction is minimised [2].

[1] National Institute of Public Health. "Department of Zoonoses with Natural Focality" ("Oddělení zoonáz s přírodní ohniskovostí"). [http://www.szu.cz/department-of-zoonoses-with-natural-focality?lang=1] Accessed 25 November 2020.
[2] State Veterinary Administration. "National Reference Laboratories of the SVA CR" ("Národní referenční laboratoře SVS ČR"). [http://en.svscr.cz/wp-content/files/National_Reference_Laboratories_of_the_SVA_CR.pdf] Accessed 25 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 evidence of a zoonotic disease unit that functions across ministries. Within the structure of the National Institute of Public Health (SZÚ), there is a Department of Zoonoses with Natural Focality, with four National Reference Laboratories [1]. The State Veterinary Administration's (SVS) premises in Prague, Jihlava and Olomouc also house national reference laboratories that monitor and deal with zoonotic diseases [2]. Whilst the SZÚ claims to conduct inter-laboratory cooperation and collaboration with other organizations, there is no explicit evidence that there is cross-ministry/department functioning beyond collaboration [3, 4]. The Ministry of Health and Ministry of Agriculture do not disclose information on the cross-ministry funding or cross-ministerial organizational structure of National Reference Laboratories established for zoonoses [5, 6]. The Central Control and Testing Institute of Agriculture does not publish information on this either [7]. The Ministry of Agriculture is responsible for policy related to zoonoses, and according to legislation (namely Decree No. 299/2003 on Measures for the Prevention and Control of Diseases and Diseases Transmissible from Animals to Humans), the Ministry of Agriculture and the State (and Regional) Veterinary Administration are responsible for the surveillance and control of zoonotic diseases [3, 8]. However, there is no evidence of inter-departmental cooperation (beyond incidental collaboration) within this field, including on the websites of the Ministry of Health, the Ministry of Agriculture, the National Institute of Public Health or the State Veterinary Administration.

[1] National Institute of Public Health. "Department of Zoonoses with Natural Focality" ("Oddělení zoonáz s přírodní ohniskovostí"). [http://www.szu.cz/department-of-zoonoses-with-natural-focality?lang=1] Accessed 25 November 2020.
[2] State Veterinary Administration. "National Reference Laboratories of the SVA CR" ("Národní referenční laboratoře SVS ČR"). [http://en.svscr.cz/wp-content/files/National_Reference_Laboratories_of_the_SVA_CR.pdf] Accessed 25 November 2020.
[3] Ministry of Agriculture of the Czech Republic. 12.6.2004. Decree No. 356/2004 Coll. On the monitoring of zoonoses and zoonotic agents and amending Decree No. 299/2003 Coll. On measures for the prevention and control of animal diseases and diseases communicable to animals Section 10 (Vyhláška ?. 356/2004 Sb., o sledování (monitoringu) zoonáz a původců zoonáz a o změně vyhlášky. 299/2003 Sb., o opatřeních pro předcházení a zdolávání nákaz a nemocí přenosných ze zvířat na člověka 10). [http://eagri.cz/public/web/mze/legislativa/pravni-predpisy-mze/tematicky-prehled/100051326.html] Accessed 25 November 2020.
[4] Ministry of Health of the Czech Republic. "Organisational scheme" ("Organizační schéma"). [http://www.mzcr.cz/dokumenty/organizacni-schema_4221_841_1.html] Accessed 30 October 2020.

[5] Ministry of Agriculture of the Czech Republic. "Concepts and strategies" (Koncepce a strategie"). [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/koncepce-a-strategie/?pos=0] Accessed 30 October 2020.
[6] Ministry of Agriculture of the Czech Republic. "Strategy of the Ministry of Agriculture of the Czech Republic with a view to 2030" ("Strategie resortu Ministerstva zemědělství České republiky s výhledem do roku 2030"). [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/koncepce-a-strategie/strategie-resortu-ministerstva-1.html] Accessed 30 October 2020.
[7] Central Control and Testing Institute of Agriculture. "Reference Laboratories" ("Referenční laboratoře"). [http://eagri.cz/public/web/ukzuz/portal/skodlive-organismy/rostlinolekarska-diagnostika/referencni-laboratore/] Accessed 30 October 2020.
[8] Ministry of Agriculture of the Czech Republic. 17.9.2003. Decree No. 299/2003 Coll., on measures for the prevention and control of diseases and diseases transmissible from animals to humans (Vyhláška o opatřeních pro předcházení a zdolávání nákaz a nemocí přenosných ze zvířat na člověka). [https://www.zakonyprolidi.cz/cs/2003-299] Accessed 9 December 2020.

1.2.2 Surveillance systems for zoonotic diseases/pathogens

1.2.2a

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic has a mechanism for livestock owners to report diseases to the government. The State Veterinary Administration (SVS - an administrative authority under the Ministry of Agriculture, established in 1969 to manage veterinary organizations in the field of agriculture) provides hotlines for each Czech region, through which owners of livestock can report to their respective regional departments of the SVS: the Regional Veterinary Administration (Krajský veterinární správa, KVS) or the City Veterinary Administration in Prague (Městská veterinární správa, MěVS). The lines are open 24 hours a day and are specifically reserved for the reporting of infections or emergency situations [1]. Relevant legislation (namely Decree No. 299/2003 on Measures for the Prevention and Control of Diseases and Diseases Transmissible from Animals to Humans) explicitly requires livestock owners to report incidents of zoonotic disease outbreak or suspicion of outbreak [2]. There are no mentions of these crisis hotlines on the websites of the Ministry of Health or Ministry of Agriculture, however [3, 4].

[1] State Veterinary Administration. "Crisis Hotlines" ("Krizové linky"). [https://www.svscr.cz/statni-veterinarni-sprava/krizove-linky/] Accessed 25 November 2020.
[2] Ministry of Agriculture of the Czech Republic. 17.9.2003. Decree No. 299/2003 Coll., on measures for the prevention and control of diseases and diseases transmissible from animals to humans (Vyhláška o opatřeních pro předcházení a zdolávání nákaz a nemocí přenosných ze zvířat na člověka). [https://www.zakonyprolidi.cz/cs/2003-299] Accessed 9 December 2020.
[3] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/Odbornik/] Accessed 9 December 2020.
[4] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 9 December 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of laws or guidelines explicitly safeguarding the confidentiality of information relating to the surveillance of animals. The State Veterinary Administration (SVS) does not mention data protection on the webpages where it provides details about its hotline for livestock owners [1, 2]. Neither the Ministry of Health, through its Data Protection page, nor the Ministry of Agriculture, through its "Farmer's Portal" and its webpage providing information on the processing of personal data, publish guidelines for the protection of information on the surveillance of animals [3, 4]. The 2019 Act on the Protection of Personal Data does not specifically refer to animal owners or livestock owners [5].

[1] State Veterinary Administration. "Crisis Hotlines" ("Krizové linky"). [https://www.svscr.cz/statni-veterinarni-sprava/krizove-linky/] Accessed 25 November 2020.
[2] State Veterinary Administration. "Contact options" ("Možnosti kontaktů"). [https://www.svscr.cz/statni-veterinarni-sprava/kontakty/] Accessed 24 November 2020.
[3] Ministry of Agriculture of the Czech Republic. "Farmer's Portal" ("Portál farmáře"). [http://eagri.cz/public/web/mze/farmar/] Accessed 24 November 2020.
[4] Ministry of Health of the Czech Republic. "Personal Data Protection Officer" ("Pověřenec pro ochranu osobních údajů"). [https://www.mzcr.cz/poverenec-pro-ochranu-osobnich-udaju/] Accessed 30 October 2020.
[5] The Office for Personal Data Protection. Act No. 101/2019 Coll., On the Protection of Personal Data and on Amendments to Certain Acts, https://www.zakonyprolidi.cz/cs/2019-110/zneni-20190424#p67_p67-1-1

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

The Czech Republic conducts surveillance of zoonotic disease in wildlife. The National Reference Laboratories that deal with zoonoses – some within the Department of Zoonoses with Natural Focality (under the National Institute of Public Health, SZU) and others as part of the SZU's Centre for Epidemiology and Microbiology – report that they monitor the epidemiological situation of zoonotic diseases in the Czech Republic. [1] Included in this monitoring is the surveillance of disease prevalence in reservoir hosts and vectors. These reservoir hosts and vectors are stated on their website to include insects, as well as wild and domestic birds and mammals [1]. The only two laboratories that explicitly list this surveillance under their activity are the National Reference Laboratory for Lyme borreliosis and the National Reference Laboratory for Leptospires [1, 2, 3]. The websites of the Ministry of Health, the Ministry of Agriculture and the Ministry of the Environment do not contain information on the surveillance of zoonotic disease in wildlife [4, 5, 6].

[1] National Institute of Public Health. Department of Zoonose with Focus on Nature (Oddělení zooníz s přírodní ohniskovostí). [http://www.szu.cz/department-of-zoonoses-with-natural-focality] Accessed 30 October 2020.
[2] National Institute of Public Health. National Reference Laboratory for Lyme Borreliosis (Národní referenční laboratoř pro lymeskou borreliózu). [http://www.szu.cz/narodni-referencni-laborator-pro-lymeskou-borreliozu] Accessed 30 October 2020.
[3] National Institute of Public Health. National Reference Laboratory for Leptospires (Národní referenční laboratoř pro leptospiry). [http://www.szu.cz/narodni-referencni-laborator-pro-leptospiry] Accessed 30 October 2020.
[4] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/Odbornik/] Accessed 9 December 2020.
[5] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 9 December 2020.
[6] Ministry of the Environment of the Czech Republic. [https://www.mzp.cz/cz] Accessed 9 December 2018.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

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

Yes = 1 , No = 0

Current Year Score: 1

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: 68.97

2019

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: 6.12

2019

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of mechanisms for working with the private sector in controlling or responding to zoonoses in the Czech Republic. Section 1 of the Decree No. 356/2004 Coll. on the Monitoring of Zoonoses and Zoonotic Agents stipulates that the State Veterinary Administration should, through the free exchange of information, collaborate with public health authorities, as well as with other bodies, organizations and institutions involved in monitoring for zoonoses. [1] However, the law does not explicitly mention the private sector, nor does it provide any further detail on collaboration. [1] There is no further

relevant information on the websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of the Environment or the National Institute of Public Health. [2, 3, 4, 5, 6, 7]

[1] Ministry of Agriculture of the Czech Republic. 12.6.2004. Decree No. 356/2004 Coll., On monitoring (monitoring) of zoonoses and zoonotic agents and amending Decree No. 299/2003 Coll., On measures for the prevention and control of diseases and diseases transmissible from animals to humans Section 3 (Vyhláška ?. 356/2004 Sb., o sledování (monitoringu) zoon a původců zoon a o změně vyhlídky ?. 299/2003 Sb., o opatřeních pro předcházení a zdolávání nákaz a nemocí přenosných ze zvířat na člověka). [http://eagri.cz/public/web/mze/legislativa/pravni-predpisy-mze/tematicky-prehled/100051319.html] Accessed 30 October 2020 2] National Institute of Public Health. Department of Zoonoses with Natural Focality (Oddělení zoon s přírodní ohnikovostí). [http://www.szu.cz/department-of-zoonoses-with-natural-focality] Accessed 300 October 2020.
[3] Ministry of Agriculture of the Czech Republic. "Animal Protection" ("Ochrana zvířat"). [http://eagri.cz/public/web/mze/ochrana-zvirat/] Accessed 30 September 20200 October 2020
[5] Ministry of Agriculture of the Czech Republic. "Legislation" ("Legislativa"). [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/legislativa/] Accessed 30 October 2020.
[6] Ministry of Health of the Czech Republic. "Public Health" ("Veřejne"). [http://www.mzcr.cz/Verejne/] Accessed 30 October 2020.
[7] Ministry of the Environment of the Czech Republic. "Legislation" ("Legislativa"). [https://www.mzp.cz/cz/legislativa] Accessed 30 October 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 the Czech Republic has in place a record, updated in the past 5 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. The State Office for Nuclear Safety (SUJB) notes that its responsibilities include maintaining a database of operators permitted to work with highly hazardous biological agents and toxins. The SUJB reports that it has issued about 130 licences for the handling of highly hazardous biological agents and toxins, and that the database includes information about persons handling hazardous biological agents or toxins, information about species of highly hazardous and hazardous biological agents and toxins, and information about facilities handling these agents and toxins. Inspectors regularly perform checks of materials and inventory books containing records of inventory changes and stock of biological agents and toxins. [1] [2] The SUJB, and specifically its Department of Enforcement of the Prohibition of Chemical and Biological Weapons, is responsible for ensuring all biological agents and toxins are accounted for, and are being accessed only by licensed individuals, in spaces that are approved, and under conditions that are regularly inspected [1]. This is stipulated by Act No. 281/2002 on Certain Measures Relating to the Prohibition of Bacteriological (Biological) and Toxin Weapons and on the Amendment of the Trades Licensing Act [3]. Furthermore, Charles University's Faculty of Natural Sciences also publishes a list of collection centers, including the Collection of Animal Pathogenic Microorganisms, and the Collections of Phytopathogenic Microorganisms [4]. These databases are not publicly accessible. Although there is evidence

that the records are continuously updated, there is no explicit evidence that they have been updated within the past 5 years. No such specific evidence is available on the websites of the Ministry of Health, Ministry of Defense, Ministry of Agriculture and National Institute of Public Health, or Czech's Confidence Building Measures reports until 2020. [5,6,7,8,9,10,11,12,13]

[1] State Office for Nuclear Safety. "Department of Enforcement of the Prohibition of Chemical and Biological Weapons" ("Oddělení pro kontrolu zákazu chemických a biologických zbraní). [https://www.sujb.cz/zakaz-biologickych-zbrani/] Accessed 30 November 2020.
[2] State Office for Nuclear Safety. "Biological Weapons Prohibition". [https://www.sujb.cz/en/biological-weapons-prohibiton/] Accessed 30 November 2020.
[3] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act (o některých opatřeních souvisejících se zákazem bakteriologických a toxinových zbraní a o změně živnostenského zákona). [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 30 November 2020.
[4] Charles University: Faculty of Natural Sciences. "Collection in Czech Republic". [https://web.natur.cuni.cz/fccm/collecze.htm#ccc] Accessed 30 November 2020.
[5] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 9 January 2019.
[6] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 30 November 2020.
[7] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 9 January 2019.
[8] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 30 November 2020.
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 30 November 2020.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 30 November 2020.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[13] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 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: 1

The Czech Republic has in place biosecurity legislation. In Act No. 281/2002 on Certain Measures Relating to the Prohibition of Bacteriological (Biological) Weapons and the Amendment of the Trade Licensing Act, paragraphs 13, 14, 16 and 17 address operational practices, the approach to declaration and evidence (reporting systems), physical containment and the use of high-risk biological agents and toxins [1]. More specifically, Act No. 281/2002 stipulates strict obligations for licence holders who have access to biological materials and several measures to ensure the security of and accountability for biological materials, as well as that authorization processes for access are upheld. The Act also sets punitive measures for cases in which high-risk biological agents are not reported, recorded or, in some situations, surrendered to the Office for Nuclear

Safety [1]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organisational structure, activity and other related information [2]. The reports from 2018, 2019 and 2020 all confirm that the Czech Republic has biosecurity legislation in place [3] [4] [5] [6].

[1] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act (o některých opatřeních souvisejících se zákazem bakteriologických a toxinových zbraní a o změně živnostenského zákona). [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 30 November 2020.
[2] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 30 November 2020.
[3] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 30 November 2020.
[4] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 30 November 2020.
[5] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[6] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 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: 1

There is an established body in the Czech Republic responsible for the enforcement of biosecurity regulations. The Czech Republic's State Office for Nuclear Safety (SÚJB) is responsible for supervising compliance with Act No. 281/2002 on Certain Measures Relating to the Prohibition of Bacteriological (Biological) and Toxin Weapons and the Amendment of the Trades Licensing Act, as well as coordinating and securing activities in the performance of tasks arising from Act No. 281/2002, whilst also testing the competence of the national authorities under this Act [1]. This includes non-proliferation at the premises where such substances are managed [1] [2]. More specifically, the Department of the Enforcement of the Prohibition of Chemical and Biological Weapons, a branch of the SÚJB, deals primarily with the supervision of compliance with legislation relating to biological substances (mainly Act No. 281/2002) [3] [4]. The SÚJB also uses reference laboratories for high-risk biological agents and toxins, which are operated by the Ministry of Health and Ministry of Defence [2] [4]. Act No. 281/2002 regulates the rights and obligations of people related to the prohibition of the development, production, accumulation and use of bacteriological and toxin weapons and their destruction, the management of specified high-risk and hazardous biological agents and toxins that may be misused, as well as outlining the responsibilities of state administrations in this area [2] [4]. The SÚJB's responsibilities further include issuing, modifying and withdrawing licences (for access to biological materials), maintaining databases of biological substances, and conducting regular inspections and inventory checks [4]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [5]. However, none of the reports from 2017 to 2020 include information on a body that is responsible for the enforcement of biosecurity

regulations in the Czech Republic [6] [7].

[1] State Office for Nuclear Safety (SÚJB). "Introduction" ("Uvod"). [https://www.sujb.cz/o-sujb/uvod/] Accessed 30 November 2020.
[2] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act (o některých opatřeních souvisejících se zákazem bakteriologických a toxinových zbraní a o změně živnostenského zákona). [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 30 November 2020.
[3] Military Outlook: Czech Military View. "Some aspects of protection against biological agents in the conditions of the Army of the Czech Republic" ("Některé aspekty ochrany proti biologickým látkám v podmínkách Armády České republiky"). 2017. [http://vojenskerozhledy.cz/kategorie-clanku/podpora-a-zabezpeceni/nektere-aspekty-ochrany?highlight=WzMsMjAwOCwiMyAyMDA4Il0=] Accessed 30 November 2020..
[4] State Office for Nuclear Safety. "Department of Enforcement of the Prohibition of Chemical and Biological Weapons" ("Oddělení pro kontrolu zákazu chemických a biologických zbraní"). [https://www.sujb.cz/zakaz-biologickych-zbrani/] Accessed 30 November 2020.
[5] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 30 November 2020.
[6] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 30 November 2020.
[7] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 30 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 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 evidence that the Czech Republic has taken action to consolidate its inventories of dangerous pathogens and toxins to a minimum number of facilities. Public information indicates that certain reference laboratories, operated by the Ministry of Health and the Ministry of Defence, are certified to hold dangerous biological agents and toxins. There is also a guide to which types of laboratory are used, depending on the substance [1]. The State Office for Nuclear Safety declares that its inspectors regularly perform material control and control of inventory books containing records of inventory changes and stock of biological agents and toxins [2]. However, there is no evidence published by the Ministry of Health, Ministry of Agriculture, Ministry of Defence, the National Institute of Public Health or the State Office for Nuclear Safety that shows that the Czech Republic has taken action to consolidate its inventories of dangerous pathogens and toxins to a minimum number of facilities [3] [4] [5] [6] [7]. The website for the Czech National Collection of Type Cultures (CNCTC) also lacks such information [8]. The CNCTC, established in 1947, and now under the authority of the National Institute of Public Health, hosts several hundred types of microorganisms and cultures, providing specimens for testing and research [8] [9]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on

Biosafety Level (BSL) facilities, their standards, organisational structure, activity and other related information [10]. However, none of the reports from 2017 to 2020 indicate a consolidation of Czech inventories of dangerous pathogens and toxins [11, 12, 13, 14]. Similarly, no such evidence has been found in the VERTIC database [15].

[1] Military Outlook: Czech Military View. "Some aspects of protection against biological agents in the conditions of the Army of the Czech Republic" ("NÄ›kterÃ© aspekty ochrany proti biologickÃ½m lÃ¡tkÃ¡m v podmÃnkÃ¡ch ArmÃ¡dy ÄŒeskÃ© republiky"). 2017. [http://vojenskerozhledy.cz/kategorie-clanku/podpora-a-zabezpeceni/nektere-aspekty-ochrany?highlight=WzMsMjAwOCwiMyAyMDA4Ill0=] Accessed 30 September 2018.
[2] State Office for Nuclear Safety. "Biological Weapons Prohibition". [https://www.sujb.cz/en/biological-weapons-prohibiton/] Accessed 28 September 2018.
[3] Ministry of Defence of the Czech Republic. "Measures of a general nature" ("Opatreni obecne povahy"). [http://www.mocr.army.cz/dokumenty-a-legislativa/opatreni-obecne-povahy-72514/] Accessed 26 September 2018.
[4] Ministry of Health of the Czech Republic. "Regional Hygiene Stations" ("Krajske hygienicke stanice"). [http://www.mzcr.cz/Verejne/obsah/krajske-hygienicke-stanice_1206_5.html] Accessed 26 September 2018.
[5] Ministry of Agriculture of the Czech Republic. "Legislation News" ("Novinky v legislative"). [http://eagri.cz/public/web/mze/tiskovy-servis/Novinky-v-legislative/] Accessed 26 September 2018.
[6] National Institute of Public Health. "Centre of Epidemiology and Microbiology" ("Centrum epidemiologie a mikrobiologie"). [http://www.szu.cz/centrum-epidemiologie-a-mikrobiologie-2] Accessed 30 October 2018.
[7] State Office for Nuclear Safety. [https://www.sujb.cz/uvod/] Accessed 9 December 2018.
[8] Czech National Collection of Type Cultures. "Catalogue of Strains" ("Katalog kmenu"). [https://apps.szu.cz/cnctc/] Accessed 30 October 2018.
[9] Å½EMLIÄŒKOVÃ&#65533;, H., R. KOLÃ&#65533;NSKÃ&#65533;, P. Å PANÄŒLOVÃ&#65533;. 2006. "Czech National Collection of Type Culture - history and the present" ("ÄŒeskÃ¡ nÃ¡rodnÃ sbÃrka typovÃ½ch kultur z historie aÅ¾ souÄ&#65533;asnosti"). [http://www.szu.cz/uploads/documents/CeM/NRLs/cnctc/sbirka_historie_soucasnost.pdf] Accessed 9 December 2018.
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 April 2019.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 April 2019.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 April 2019.
[13] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[14] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.
[15] VERTIC database. Biological Weapons and Materials. Czech Republic. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 4 January 2020.

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that the Czech Republic has in-country capacity to conduct polymerase chain reaction (PCR) diagnostic testing for anthrax or Ebola in the Czech Republic. Whilst the Prague branch of the State Veterinary Institute (SVÚ Praha) includes PCR-based diagnostic testing in the list of methods used in its laboratories, and the branch is designated to test for anthrax, SVU Prague states that it uses PCR testing for Brachyspira hyodysenteriae, Brucella sp., Francissella sp., Lawsonia intracellularis, Mycobacterium avium, Mycobacterium paratuberculosis, Taylorella equigenitalis, Clostridum perfringens, Escherichia coli, but it does not state that it uses PCR for anthrax [1, 2]. There is also no evidence that the Czech Republic has the capacity to test for Ebola, with PCR or otherwise, in the media and webpages for the National Reference Laboratories, the State Veterinary Institute and the Ministry of Health [3, 4, 5]. In 2014, the Ministry of Health did take steps to ensure that all passengers flying into the Czech Republic from specific West African countries, such as Guinea, Liberia and Sierra Leone, were screened in an allocated space of Prague's Václav Havel Airport, where personnel from the Ministry of Health and National Institute of Public Health were stationed to "perform epidemiological investigations to prevent Ebola from spreading into the Czech Republic" [6, 7]. The method of "screening", however, is not mentioned [6, 7]. Furthermore, when in October 2014, for the first time a citizen in the Czech Republic was hospitalized with suspected Ebola (having spent time in Liberia), the hospital (Bulovka Hospital in Prague) had to send blood samples to the Robert Koch Institute in Berlin to confirm the diagnosis of Ebola, as this was not possible in the Czech Republic [8, 11]. The websites of the Ministry of Defence and Ministry of Agriculture do not contain evidence of PCR-based testing for either anthrax or Ebola [9, 10].

[1] State Veterinary Institute Prague. "Methods" ("Metody"). [https://www.svupraha.cz/virologie-serologie/metody-4/] Accessed 30 November 2020.
[2] National Institute of Public Health. "List of workplaces that carry out specialized microbiological examinations and identification of infectious agents in the Czech Republic" ("Seznam pracovišť, které provádějí v ČR specializované mikrobiologické vyšetření a idenitifikaci infekčních agentů").
[http://www.szu.cz/uploads/documents/CeM/mikrobialni_agens_web.pdf] Accessed 30 November 2020.
[3] National Institute of Public Health. "National Reference Centre in CEM" ("Národní referenční pracoviště v CEM").
[http://www.szu.cz/narodni-referencni-pracoviste-v-cem] Accessed 30 November 2020.
[4] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 30 November 2020.
[5] State Veterinary Institute. [https://www.svscr.cz/] Accessed 30 November 2020.
[6] National Institute of Public Health. 23.12.2014. "Protective measures" ("Ochranná opatření").
[http://www.szu.cz/uploads/documents/CeM/infekce/ebola/2014_zruseni_ochranneho_opatreni.pdf] Accessed 30 November 2020.
[7] Ministry of Health of the Czech Republic. 20.10.2014. "Minister N?me?ek: We declare a protective measure against the introduction of Ebola" ("Ministr Němeček: Vyhlašujeme ochranná opatření proti zavlečení Eboly").
[http://www.mzcr.cz/dokumenty/ministr-nemecekvyhlasujeme-ochranne-opatreni-proti-zavleceni-eboly-_9688_1.html] Accessed 30 November 2020.
[8] iDNES.cz. 9.10.2014. "At Bulovka in Prague, a patient was hospitalized with suspicion of ebola" ("Na pražské Bulovce hospitalizovali pacienta s podezřením na ebolu"). [https://zpravy.idnes.cz/bulovka-podezreni-na-ebolu-d0b-/domaci.aspx?c=A141009_184946_domaci_hv] Accessed 30 November 2020.
[9] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 30 November 2020.
[10] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 30 November 2020.
[11] Rozhlas Plus. 4. 9. 2015. "Doc. Vojtěch Adam about diagnostic of virotic diseases and new Ebola testing method." (Doc. Vojtěch Adam o diagnostice virových onemocnění a nové metodě testování eboly). [https://plus.rozhlas.cz/doc-vojtech-adam-o-diagnostice-virovych-onemocneni-a-nove-metode-testovani-eboly-6599079]. Accessed 30 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 trainthe-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Czech Republic requires biosecurity training using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential. Act No. 281/2002 Coll. on Certain Measures Relating to the Prohibition of Bacteriological (Biological) and Toxin Weapons and the Amendment of the Trades Licensing Act stipulates that a mandatory licence must be attained in addition to the specific educational standards required of any applicant to work with harmful biological substances [1]. Act No. 281/2002 regulates the rights and obligations to people related to the prohibition of the development, production, accumulation and use of bacteriological (toxin) and toxin weapons and their destruction, the management of specified high-risk and hazardous biological agents and toxins that may be misused, as well as outlining the responsibilities of state administrations in this area [1]. Furthermore, the Population Protection Institute (an expert body giving information, expertise, consultation and advisory services to the bodies and organizations of the Fire Rescue Service of the Czech Republic) provides standardized training courses, which focus on the principles of behaviour and protective measures in dealing with the occurrence of dangerous chemicals, toxins and other high-risk agents [2]. However, further than this, there are no public details about the teaching or training required to attaining a licence, and there is no evidence of a common curriculum or a train-the-trainer program, including on the websites of the State Office for Nuclear Safety, the Ministry of Health, the Ministry of Defense, the Ministry of Agriculture, the National Institute of Public Health or associated bodies [3, 4, 5, 6, 7]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organisational structure, activity and other related information [8]. However, the reports from 2017 to 2020 do not include information on biosecurity training in the Czech Republic [9, 10, 11, 12]. Similarly, no such evidence has been found in the VERTIC database [15].

[1] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act. [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 30 November 2020.
[2] Population Protection Institute. Requirements and conditions for successful completion of the course (P-CHL P). [http://www.hzscr.cz/clanek/pozadavky-a-podminky-pro-uspesne-absolvovani-kurzu-p-chl-p.aspx] Accessed 2 October 2020.
[3] State Office for Nuclear Safety. Bacteriological (Biological) and Toxin Weapons Prohibition. [https://www.sujb.cz/en/biological-weapons-prohibiton/] Accessed 30 November 2020..
[4] Ministry of Defence of the Czech Republic. Laws under the authority of the Ministry of Defence. [http://www.mocr.army.cz/dokumenty-a-legislativa/zakony-v-pusobnosti-mo-172/] Accessed 1 October 2020.
[5] Ministry of Health of the Czech Republic. "Legislation" ("Legislativa"). [http://www.mzcr.cz/Legislativa/] Accessed 30 October 2020.
[6] Ministry of Agriculture of the Czech Republic. "Legislation News" ("Novinky v legislative"). [http://eagri.cz/public/web/mze/tiskovy-servis/Novinky-v-legislative/] Accessed 30 October 2020.
[7] National Institute of Public Health. "Accredited educational programmes" ("AkreditovanÃ½ vzdÄ›lÃ¡vacÃ programy").

[http://www.szu.cz/akreditace] Accessed 30 November 2020..
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 30 November 2020..
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 30 November 2020..
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 30 November 2020..
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.
[13] VERTIC database. Biological Weapons and Materials. Czech Republic. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 4 January 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: 1

Czech regulations require personnel with access to especially dangerous pathogens to undergo background checks, but there is no evidence that drug tests or psychological/mental fitness checks are required. Section 8 of Act No. 281/2002 Coll. on Certain Measures Relating to the Prohibition of Bacteriological (Biological) and Toxin Weapons and the Amendment of the Trades Licensing Act states that a comprehensive criminal background check is a mandatory requirement for any personnel to be given access to biological materials and toxins [1]. However, there is no mention of regulations for drug testing and psychological or mental fitness checks under this Act, nor in the legislation on the websites of the Ministry of Health, Ministry of Defence and Ministry of Agriculture [2] [3] [4]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organisational structure, activity and other related information [5]. However, no report between 2017 and 2020 include information on requirements of checks of personnel with access to especially dangerous pathogens [6, 7, 8, 9].

[1] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act. [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 1 October 2018.
[2] Ministry of Health of the Czech Republic. "Mandatory Published Information" ("Povinně zveřejňované informace"). [http://www.mzcr.cz/obsah/povinne-zverejnovane-informace_2901_1.html] Accessed 1 October 2018.
[3] Ministry of Defence of the Czech Republic. "Laws Under the Authority of the Ministry of Defence" ("Zákony v působnosti Ministerstva obrany ?R"). [http://www.mocr.army.cz/dokumenty-a-legislativa/zakony-v-pusobnosti-mo-172/] Accessed 1 October 2018.
[4] Ministry of Agriculture of the Czech Republic. "Legislation" ("Legislativa"). [http://eagri.cz/public/web/mze/legislativa/] Accessed 1 October 2018.

[5] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 April 2019.
[6] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 April 2019.
[7] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 April 2019.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 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 Czech Republic has publicly available national regulations on the safe and secure transport of infectious substances. The Czech Republic is a contracting party to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR), as of the amendments applicable from 1 January 2017, which stipulates requirements in regards to packaging and labelling of dangerous goods, as well as the construction, equipment and operation of the vehicle carrying the goods in question. ADR includes Categories A and B [2] [3]. Decree No. 306/2012 on Conditions for the Prevention and Spread of Infectious Diseases and Hygiene Requirements for the Operation of Healthcare Facilities and Social Care Institutions provides clear guidance on how biological substances should be transported securely and safely, including types of packaging, the expiration of packaging upon use, how to box the substances and sterilisation requirements. However, the decree does not explicitly mention categories A and B [1]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the Confidence Building Measure Return, which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organisational structure, activity and other related information [4]. The 2020 report indicates that regulations on the export and import of dangerous pathogens and toxins are in place, but does not provide further information [5]. No such evidence has been found in the VERTIC database. [6]

[1] Ministry of Health of the Czech Republic. 1.10.2012. Decree No. 306/2012 on conditions for the prevention and spread of infectious diseases and hygiene requirements for the operation of health care facilities and social care institutions (VyhlÃ¡Å¡ka o podmÃnkÃ¡ch pÅ™edchÃ¡zenÃ vzniku a Å¡ÃÅ™enÃ infekÄ&#65533;nÃch onemocnÄ›nÃ a o hygienickÃ½ch poÅ¾adavcÃch na provoz zdravotnÃch zaÅ™ÃzenÃ a ÃºstavÅ¯ sociÃ¡lnÃ pÃ©Ä&#65533;e). [http://public.psp.cz/en/sqw/sbirka.sqw?cz=306&r=2012] Accessed 3 October 2020.
[2] United Nations Economic Commission for Europe. "About ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road". [https://www.unece.org/trans/danger/publi/adr/adr_e.html] Accessed 30 October 2020.
[3] United Nations Economic Commission for Europe. 2016. "ADR: applicable as from 1 January 2017."

[https://www.unece.org/fileadmin/DAM/trans/danger/publi/adr/adr2017/ADR2017e_web.pdf] Accessed 30 October 2020.
[4] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 30 October 2020.
[5] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 October 2020.
[6] VERTIC database. Biological Weapons and Materials. Czech Republic. [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 4 January 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

The Czech Republic has legislative and regulatory guidelines on the oversight of cross-border transfer and end-user screening of dangerous pathogens. In 2014, the Ministry of Health published an agreement between itself and the Ministry of Defense, entitled Guidelines for the Transport of a Sample of Biological Material for Laboratory Testing of the Source of Highly Contagious Diseases Abroad by the Forces and Means of the Ministry of Defense, which stipulate that the package must meet the World Health Organization's Guidance on Regulations for the Transport of Infectious Substances 2011-2012. The guidelines further explain the official procedure for cross-border transfer, including the option of escort by the Czech military police to Prague's Václav Havel airport, as well as informing the State Office for Nuclear Safety and ensuring agreements between the Czech National Institute of Public Health and laboratories abroad [1]. Otherwise the Czech Republic follows European Council Regulation No. 428/2009 on the Control of Exports, Transfer, Brokering and Transit of Dual-Use Items [2] [3]. This requires, inter alia, strict evidence of purchasing contracts between exporter and importer, as well as export declarations and indications of specific purposes of use [2] [3]. In addition, according to Regulation 428/2009, screening of the end-user (through identification), as well as relaying information that details the intended use of the substance by the end-user, is required before any export of dangerous pathogens can be authorized [3]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [4]. The 2020 report indicates that regulations on the export and import of dangerous pathogens and toxins are in place, but does not provide further information [5].

[1] Ministry of Health of the Czech Republic. 2014. "An agreement between the Ministry of Health and the Ministry of Defense to ensure the transport of a sample of biological material to detect the origin of highly contagious diseases abroad, by the Ministry of Defense forces and resources" ("Realizacni dohoda uzavrena mezi Ministerstvem zdravotnictví a Ministerstvem obrany o zajištění transportu vzorků biologického materiálu k detekci puvodcu vysoce nakažlivých nemoci do zahranimi, silami a prostredky Ministerstva obrany").
[https://www.mzcr.cz/Soubor.ashx?souborID=21008&typ=application/pdf&nazev=168-14.pdf] Accessed 3 October 2020.
[2] State Office for Nuclear Safety. "The rules for the transport of microorganisms" ("Pravidla pro p?epravu mikroorganism?").
[https://www.sujb.cz/fileadmin/sujb/docs/zakaz-zbrani/Pravidla-preprava-mikroorganismu.pdf] Accessed 3 October 2020.
[3] European Council. 5.5.2009. Regulation No. 428/2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items. [https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32009R0428] Accessed 4 December 2020.
[4] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-

republic]. Accessed 28 November 2020.
[5] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 28 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

The Czech Republic has in place national biosafety regulations. Act No. 281/2002 on Certain Measures Relating to the Prohibition of Bacteriological (Biological) and Toxin Weapons and the Amendment of the Trades Licensing Act sets out requirements and licensing regulations for personnel who will deal with harmful biological substances [1]. For example, the licensee (authorized to handle dangerous biological materials) must allow inspectors to monitor the licence holder's use of such materials, must inform the State Office for Nuclear Safety of any changes in the substances being used and if there are any changes of personnel with access to biological materials, and must provide couriers of biological materials with the appropriate packaging and labelling [1]. Act No. 281/2002 regulates the rights and obligations of persons in regard to the prohibition of the development, production, accumulation and use of bacteriological and toxin weapons, as well as their destruction [1]. The act also stipulates that inspectors of the State Office for Nuclear Safety will check on the safety of laboratories, inventories towards the protection of those who work on these premises. Furthermore, the act provides guidance on potential penalties and sanctions for negligence in the area of safety with harmful biological substances [1]. In addition, Act No. 309/2006 on Other Occupational Health and Safety Conditions includes regulations that safeguard against risk factors for employees working in conditions or controlled zones with biological agents [2]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [3]. The 2020 report confirms that biosafety regulations are in place in the country [4].

[1] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act (o některých optatřeních souvisejících se zákazem bakteriologických a toxinových zbraní a o změně živnostenského zákona). [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 1 October 2020.
[2] Parliament of the Czech Republic. 1.1.2007. Act No. 309/2006 Coll. amending other occupational health and safety requirements in labor relations and ensuring health and safety at work or providing services outside the labor relations (Act on Other Occupational Health and Safety Conditions), (Zákon, kterým se upravují další požadavky bezpe?nosti a ochrany zdraví při práci v pracovně právních vztazích a o zajištění bezpečnosti a ochrany zdraví při činnosti nebo poskytování služeb mimo pracovní právní vztahy (zákon o zajištění dalších podmínek bezpečnosti a ochrany zdraví při práci). [https://www.zakonyprolidi.cz/cs/2006-309] Accessed 1 October 2020.
[3] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 20 November 2020..
[4] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 20 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

There is an established agency responsible for the enforcement of biosafety legislation and regulations in the Czech Republic. Act No. 281/2002 on Certain Measures Relating to the Prohibition of Bacteriological (Biological) and Toxin Weapons and the Amendment of the Trades Licensing Act regulates the rights and obligations of persons in regard to the prohibition of the development, production, accumulation and use of bacteriological and toxin weapons, as well as their destruction [1]. According to the act, the State Office for Nuclear Safety (SÚJB), which supervises the handling of high-risk and hazardous biological agents and toxins, is responsible for keeping records of biosafety controls, measures and specialised personnel, and is also the authority that can issue, amend and withdraw authorization to handle high-risk biological agents and toxins [1]. The act also stipulates that inspectors of the State Office for Nuclear Safety will review the safety of laboratories for those who work there. Furthermore, the act provides guidance on potential penalties and sanctions for negligence in the area of safety with harmful biological substances [1]. This supervision is carried out by the SÚJB's sub-branch, the State Institute of Nuclear, Chemical and Biological Protection (SÚJCHBO), which works with chemical specialists of the Czech armed forces [2] [3] [4]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [5]. However, no report from 2017 to 2020 includes information on a body that is responsible for the enforcement of biosafety regulations in the Czech Republic [6, 7, 8, 9].

[1] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 Coll. on certain measures relating to the prohibition of bacteriological (biological) and toxin weapons and the amendment of the Trades Licensing Act (o některých opatřeních souvisejících se zákazem bakteriologických (biologických) a toxinových zbraní a o změně živnostenského zákona). [https://www.sujb.cz/fileadmin/sujb/docs/legislativa/zakony/Biologicky_zakon_20140527_2.pdf] Accessed 1 October 2020.
[2] National Institute for Nuclear, Chemical and Biological Protection. About Us. [http://www.sujchbo.cz/] Accessed 2 November 2020.
[3] Ministry of Defence of the Czech Republic. Biological Protection Department - Techonin. [http://www.acr.army.cz/struktur/generalni/podpora/avz/odbor-biologicke-ochrany---techonin-86980/] Accessed 2 November 2020.
[4] Military Outlook: Czech Military View. "Some aspects of protection against biological agents in the conditions of the Army of the Czech Republic" ("Některé aspekty ochrany proti biologickým látkám v podmínkách Armády České republiky"). 2017. [http://vojenskerozhledy.cz/kategorie-clanku/podpora-a-zabezpeceni/nektere-aspekty-ochrany?highlight=WzMsMjAwOCwiMyAyMDA4Il0=] Accessed 30 November 2020.
[5] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 November 2020.
[6] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 November 2020.
[7] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 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 trainthe-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential?

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Czech Republic requires biosafety training, using a standardised 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. In Czech law, Act No. 281/2002 on Certain Measures Related to the Prohibition of Bacteriological (Biological) and Toxin Weapons and on the Amendment of the Trades Licensing Act regulates the rights and obligations of persons in regard to the prohibition of the development, production, accumulation and use of bacteriological and toxin weapons. The act stipulates that a mandatory licence must be attained in addition to the specific educational standards required of any applicant to work with harmful biological substances [1]. Further than this, however, the details of training needed for attaining a licence, including a common curriculum and a train-the-trainer program, are not disclosed by the State Office for Nuclear Safety, by the Ministry of Health, Ministry of Agriculture, Ministry of Defence, the National Institute of Public Health or in relevant legislation (specifically Act No. 281/2002) [1, 2, 3, 4, 5, 6]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [7]. However, no report from 2017 to 2020 includes information on biosafety training in the Czech Republic [8, 9, 10, 11]. Similarly, the VERTIC database does not offer any further evidence [12].

[1] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002, on Certain Measures Related to the Prohibition of Bacteriological (Biological) and Toxin Weapons and on the Amendment of the Trades Licensing Act (Zákon o některých opatřeních souvisejících se zákazem bakteriologických (biologických) a toxinových zbraní a o změně živnostenského zákona). [https://www.zakonyprolidi.cz/cs/2002-281/zneni-20180101] Accessed 1 October 2020.
[2] State Office for Nuclear Safety. Bacteriological (Biological) and Toxin Weapons Prohibition. [https://www.sujb.cz/en/biological-weapons-prohibiton/] Accessed 30 September 2020.
[3] Ministry of Defence of the Czech Republic. Laws under the authority of the Ministry of Defence. [http://www.mocr.army.cz/dokumenty-a-legislativa/zakony-v-pusobnosti-mo-172/] Accessed 1 October 2020.
[4] Ministry of Agriculture of the Czech Republic. "Legislation" ("Legislativa"). [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/legislativa/] Accessed 2 November 2020.
[5] Ministry of Health of the Czech Republic. "Legislation" ("Legislativa"). [http://www.mzcr.cz/Legislativa/] Accessed 2 November 2020.
[6] National Institute of Public Health. [http://www.szu.cz/] Accessed 4 December 2020.
[7] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 November 2020. 10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-

ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.
[12] VERTIC Database. "Czech Republic." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 30 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 that the Czech Republic has conducted an assessment to determine whether ongoing research is occurring on especially dangerous pathogens, toxins, pathogens with pandemic potential, or other dual use research. The websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of Defense, the National Institute of Public Health, the Population Protection Institute and the State Office for Nuclear Safety, which all provide information on ongoing research and related details, do not disclose any evidence to suggest that the Czech Republic has conducted such an assessment [1, 2, 3, 4, 5, 6]. There is no such information on the website of the export control department of the Ministry of Industry and Trade [7]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [8]. However, no report from 2017 to 2020 indicates whether the Czech Republic has conducted an assessment of ongoing research on especially dangerous pathogens [9,10,11,12]. Similarly, the VERTIC database does not offer any relevant evidence [13].

[1] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 2 October 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[3] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[4] State Office for Nuclear Safety. Research and development. [https://www.sujb.cz/o-sujb/vyzkum-a-vyvoj/] Accessed 2 October 2020.
[5] Population Protection Institute. Science and research. [http://www.hzscr.cz/veda-a-vyzkum.aspx] Accessed 2 October 2020.
[6] National Institute of Public Health. Science and research. [http://www.szu.cz/veda-a-vyzkum?lang=1] Accessed 2 October 2%2.
[7] Ministry of Industry and Trade. Department of International Control Regimes. [https://www.mpo.cz/en/foreign-trade/licence-administration/international-control-regimes-dual-use-goods/department-of-international-control-regimes--16312/] Accesed 2 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 November 2020.
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-

ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 November 2020.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.
[13] VERTIC Database. "Czech Republic." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 30 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 evidence that a policy exists that would require oversight of dual use research with especially dangerous pathogens, toxins, or pathogens with pandemic potential. The websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of Defense, the National Institute of Public Health, the Population Protection Institute and the State Office for Nuclear Safety, which provide information on research and regulatory details related to research, do not disclose any evidence of such a policy in the Czech Republic [1, 2, 3, 4, 5, 6]. There is no such information on the website of the export control department of the Ministry of Industry and Trade [7]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [8]. However, no report from 2017 to 2020 includes information on a Czech policy that would require oversight of dual use research with especially dangerous pathogens, toxins or pathogens with pandemic potential [9, 10, 11, 12]. Similarly, the VERTIC database does not offer any evidence [13].

[1] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 2 October 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[3] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[4] State Office for Nuclear Safety. Research and development. [https://www.sujb.cz/o-sujb/vyzkum-a-vyvoj/] Accessed 2 October 2020.
[5] Population Protection Institute. Science and research. [http://www.hzscr.cz/veda-a-vyzkum.aspx] Accessed 2 October 2020.
[6] National Institute of Public Health. Science and research. [http://www.szu.cz/veda-a-vyzkum?lang=1] Accessed 2 October 2020.
[7] Ministry of Industry and Trade. Department of International Control Regimes. [https://www.mpo.cz/en/foreign-trade/licence-administration/international-control-regimes-dual-use-goods/department-of-international-control-regimes--16312/] Accesed 2 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 November 2020.
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 November 2020.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-

ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.
[13] VERTIC Database. "Czech Republic." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 30 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 a specific agency is responsible for oversight of research with especially dangerous pathogens, pathogens with pandemic potential, or other dual use research. Such evidence is absent from the websites of the Ministry of Health, the Ministry of Agriculture, the Ministry of Defense, the State Office for Nuclear Safety, the Population Protection Institute, the National Institute of Public Health and also from the website of the export control department of the Ministry of Industry and Trade [1, 2, 3, 4, 5, 6, 7]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [8]. However, no report from 2017 to 2020 includes information on an agency that would be responsible for oversight of dual use research with especially dangerous pathogens, toxins or pathogens with pandemic potential [9, 10, 11, 12]. Similarly, the VERTIC database does not offer any evidence [13].

[1] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 2 October 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[3] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[4] State Office for Nuclear Safety. Research and development. [https://www.sujb.cz/o-sujb/vyzkum-a-vyvoj/] Accessed 2 October 2020.
[5] Population Protection Institute. Science and research. [http://www.hzscr.cz/veda-a-vyzkum.aspx] Accessed 2 October 2020.
[6] National Institute of Public Health. Science and research. [http://www.szu.cz/veda-a-vyzkum?lang=1] Accessed 2 October 2020.
[7] Ministry of Industry and Trade. Department of International Control Regimes. [https://www.mpo.cz/en/foreign-trade/licence-administration/international-control-regimes-dual-use-goods/department-of-international-control-regimes--16312/] Accesed 2 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 November 2020.
[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 November 2020.
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 November 2020.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.

[13] VERTIC Database. "Czech Republic." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 30 November 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that Czech legislation requires the screening of synthesized DNA before it is sold. Decree No. 209/2004 on Closer Conditions for Handling Genetically Modified Organisms and Genetic Products includes strict requirements on the regulation of synthesized DNA [1]. This entails providing numerous pieces of information detailing the composition of a genetically modified organism (GMO), including its DNA [1]. An application with precise labelling and details must be submitted to one of the relevant authorities – the Czech Agriculture and Food Inspection Authority, the Central Control and Testing Institute of Agriculture, the State Institute for Drug Control or the Institute for State Control of Veterinary Biologicals and Medicines - which then process the application and may either grant a permit for the distribution of the GMO/synthesized DNA, or reject the application (the precise time scale of this process is not disclosed) [1, 2]. The Czech Republic also follows European Union Regulation No. 1829/2003 on Genetically Modified Food and Feed, which sets out strict guidelines on the use and distribution of GMOs, including risk assessments and the provision of full information on synthesised DNA [3]. However, there is no further information, specifically requiring the DNA to pass through a screener or code reader to look for dangerous sequences before sale is authorized [1, 2, 3]. Such information could not be found on the websites of the Ministry of Health, the Ministry of Defense, the Ministry of Agriculture or the Ministry of Transport [4, 5, 6, 7]. Every year, the Czech Republic reports to the United Nations Office at Geneva (UNOG) for the "Confidence Building Measure Return", which is a reporting mechanism set by the Biological Weapons Convention, and each report includes data on Biosafety Level (BSL) facilities, their standards, organizational structure, activity and other related information [8]. However, no report from 2017 to 2020 includes information on the screening of synthesised DNA [9, 10, 11, 12]. Similarly, the VERTIC database does not offer any evidence [13].

[1] Ministry of the Environment of the Czech Republic. 27.4.2004. Decree No. 209/2004 Coll. on more detailed conditions for the handling of genetically modified organisms and genetic products (o bližších podmínkách o nakládání s geneticky modifikovanými organismy a genetickými produkty). [https://www.mzp.cz/www/platnalegislativa.nsf/3C0C27A7B6370A38C12580AB003EBB91/%24file/209_2004.pdf] Accessed 5 October 2020.
[2] Veterinary and Pharmaceutical University, Brno. "Genetically modified organisms" ("Geneticky modifikované organismy"). [https://cit.vfu.cz/vetleg/CD/temata/gmo.htm] Accessed 3 December 2020.
[3] European Parliament. 22.9.2003. Regulation (EC) No. 1829/2003 on genetically modified food and feed. [https://eur-lex.europa.eu/legal-content/en/ALL/?uri=CELEX%3A32003R1829] Accessed 3 December 2020.
[4] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 28 November 2020.
[5] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 28 November 2020.
[6] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 28 November 2020.
[7] Ministry of Transport of the Czech Republic. [https://www.mdcr.cz/?lang=cs-CZ]. Accessed 28 November 2020.
[8] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. [https://bwc-ecbm.unog.ch/state/czech-republic]. Accessed 28 ANovember 2020.

[9] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2017. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2017_czech_republic.pdf]. Accessed 28 November 2020.
[10] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2018. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2018_czech_republic.pdf]. Accessed 28 November 2020.
[11] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2019. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2019_czech_republic.pdf]. Accessed 30 November 2020.
[12] United Nations Office at Geneva. Confidence Building Measures. Czech Republic. CBM Report, 2020. [https://bwc-ecbm.unog.ch/system/files/form-pdf/bwc_cbm_2020_czech_republic.pdf]. Accessed 30 November 2020.
[13] VERTIC Database. "Czech Republic." [https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/c/]. Accessed 30 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: 0

There is only evidence that the Czech Republic has the capacity to conduct diagnostic tests for 2 of the 10 WHO-defined core tests. Testing takes place in the national reference laboratories at the National Institute for Public Health and the State Veterinary Institute. Of the six common tests, only two correspond to the specified methods – serology for HIV and bacterial culture for typhoid [1, 2, 3, 4]. The other tests are as follows: for influenza, post-infection and post-vaccination serology using the hemagglutination inhibition test and virus neutralization test, and post-infection serology using the complement fixation test (CFT); for tuberculosis, susceptibility testing to first-line antituberculosis drugs by molecular biological methods and extended susceptibility testing to antituberculosis drugs and other antibacterial drugs; for malaria, the testing method is not specified; for poliovirus, the precise methods of testing are not specified [5, 6, 7, 8]. There is no evidence of any further testing for WHO-defined core tests in the Czech Republic on the pages of the Ministry of Health or the National Public Health Institute [10, 11]. The Czech Republic does not appear to have defined its four country-specific tests [1, 10].

[1] National Institute of Public Health. "National Reference Centre in CEM" ("Národní referenční pracoviště v CEM"). [http://www.szu.cz/narodni-referencni-pracoviste-v-cem] Accessed 3 October 2020.
[2] National Institute of Public Health. "National Reference Laboratory for HIV/AIDS" ("Národní referenční laboratoř pro HIV/AIDS"). [http://www.szu.cz/narodni-referencni-laborator-pro-aids] Accessed 3 October 2020.
[3] National Institute of Public Health. "National Reference Laboratory for Salmonella" (""Národní referenční laboratoř pro salmonely"). [http://www.szu.cz/narodni-referencni-laborator-pro-salmonely] Accessed 3 October 2020.
[4] World Health Organisation. "Methods for second generation HIV surveillance implementation for countries of Central and Eastern Europe (CEE) and the Baltic states". 2002. [https://apps.who.int/iris/bitstream/handle/10665/107457/e77980.pdf?sequence=1&isAllowed=y]. Accessed 28 November 2020.
[5] National Institute of Public Health. "National Reference Laboratory for Enteroviruses" ("Národní referenční laboratoř pro enteroviry"). [http://www.szu.cz/narodni-referencni-laborator-pro-enteroviry] Accessed 3 October 2020.
[6] National Institute of Public Health. "National Reference Laboratory for Influenza and Respiratory Viral Disease" (""Národní referenční laboratoř pro chřipku a nechřipková respirační virová onemocnění"). [http://www.szu.cz/narodni-referencni-laborator-pro-chripku] Accessed 3 October 2020.
[7] National Institute of Public Health. "National Reference Laboratory for Mycobacteria" ("Národní referenční laboratoř pro mykobakterie"). [http://www.szu.cz/narodni-referencni-laborator-pro-mykobakterie] Accessed 3 October 2020.
[8] Charles University: First Faculty of Medicine. Department of Tropical Medicine. Diagnostics. [https://tropy.lf1.cuni.cz/diagnostika] Accessed 3 October 2020.
[9] State Veterinary Institute Prague. "National Reference Laboratories and Reference Laboratories" ("Národní referenční

laboratoře a referenční laboratoře"). [https://www.svupraha.cz/nrl-rl/] Accessed 3 October 2020.
[10] National Institute of Public Health. [http://www.szu.cz/] Accessed 3 October 2020.
[11] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 10 October 2020.

2.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence of a national plan, strategy or similar document for conducting testing during a public health emergency, which includes considerations for testing for novel pathogens, scaling capacity, and defining goals for testing including for Covid-19. The Pandemic Plan, adopted in 2011 to guide the country's response to pandemics of respiratory diseases, does not include a plan for testing, and there is no evidence of a testing plan on the websites of the Ministry of Health, the Public Health Authority or the Ministry of Agriculture and Rural Development. [1, 2, 3, 4]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2018.
[2] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2018.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 31 October 2018.
[4] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 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

There is evidence that there is a national laboratory that serves as a reference facility that is accredited. The Center of Epidemiology and Microbiology's national reference laboratories, at the National Institute of Public Health, have been accredited since 2001, when they received SN EN ISO/IEC 17025 accreditation from the Czech Accreditation Institute. [1] Since 2005, they have been accredited to SN EN ISO 15189, which is for quality and competence in medical laboratories [1]. They are also accredited as public health laboratories (No. 1206.4) and as test laboratories (No. 8002) [1]. This includes national reference laboratories for E. coli, shigella, Lyme disease, salmonella, mycobacteria, rubella, measles, mumps and healthcare-associated infections, among others. [1]

[1] National Institute of Public Health. "National Reference Centre at CEM" ("Národní referenční pracoviště v CEM"). [http://www.szu.cz/narodni-referencni-pracoviste-v-cem] Accessed 3 October 2020.

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic has a national laboratory that serves as a reference facility that is subject to external quality assurance review. The Center of Epidemiology and Microbiology's laboratories, at the National Institute of Public Health, are subject to external quality assurance review, with each laboratory sub-branch declaring its participation in such reviews [1, 2, 3]. For example, the National Reference Laboratory for Influenza stipulates its participation in the following international external laboratory quality assessment schemes: Quality Control for Molecular Diagnostics (QCMD), World Health Organization (WHO), and European Centre for Disease Prevention and Control (ECDC) [1]. The QCMD is an independent International External Quality Assessment / Proficiency Testing organisation, focusing mainly on molecular infectious diseases; the WHO and ECDC also provide external evaluations in this field. The Center of Epidemiology and Microbiology's Accreditation Unit organizes the External Quality Assessment Scheme for microbiology laboratories in the Czech Republic (and in other countries) and has been accredited to the standard SN EN ISO/IEC 17043 for these activities since June 2010, within the expert group on proficiency testing [4].

[1] National Institute of Public Health. National Reference Laboratory for Influenza (Národní referenční laboratoř pro chřipku a nechřipkové respirační virové onemocnění). [http://www.szu.cz/narodni-referencni-laborator-pro-chripku] Accessed 3 October 2020.
[2] National Institute of Public Health. National Reference Laboratory for Mycobacteria (Národní referenční laboratoř pro mykobakterie). [http://www.szu.cz/narodni-referencni-laborator-pro-mykobakterie] Accessed 3 October 2020.
[3] National Institute of Public Health. National Reference Laboratory for Salmonella (Národní referenční laboratoř pro salmonely). [http://www.szu.cz/narodni-referencni-laborator-pro-salmonely] Accessed 3 October 2020.
[4] National Institute of Public Health. The CEM National Reference Laboratories (NRLs) (Národní referenční pracoviště v CEM). [http://www.szu.cz/narodni-referencni-pracoviste-v-cem] Accessed 3 October 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence of a nationwide specimen transport system in the Czech Republic. No evidence of such a system could be found on the websites of the Ministry of Health, Ministry of Agriculture or the National Institute of Public Health [1,2,3]. There are, however, regional and private courier systems. It is stated in a Directive of a Regional Hygiene Station that, in some cases, personnel of the Medical Facility of the Ministry of the Interior can transport specimens from the collection point to the laboratory, and that otherwise collection can also be carried out by a mobile medical service, such as an ambulance [4]. Legislation (specifically Decree No. 306/2012, Regulating the Conditions for the Prevention and Spread of Infectious Diseases and Hygienic Requirements for the Operation of Healthcare Facilities and Social Care Institutions and Act No. 281/2002 on Certain Measures Related to the Prohibition of Bacteriological (Biological) and Toxin Weapons and on the Amendment of the Trades Licensing Act) provide guidelines on how specimens should be transported and handled in the process of transportation, but not an overall system [5, 6]. The websites of various hospitals also provide public documents

and guidelines in relation to the transportation of specimens, although they only stipulate the conditions under which high-risk specimens must be transported, and do not extend to detailing the accountable courier or an overarching, general transportation system [6, 7, 8, 9]. There are indications that private couriers deal with the transport of biological materials – for example, IKEM (the Czech Republic's Institute of Clinical and Experimental Medicine) uses private courier companies such as PPL, DHL and TNT for the transport of biological materials and blood samples – but there is no public evidence that these private companies cooperate with the Ministry of Health or other state bodies [1,10].

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 31 October 2020.
[4] Regional Hygiene Station - Vyso?ina. "Directive on the Uniform Procedure for the Emergence of an Emerging Event Subject to the International Health Regulations in connection with the occurrence of a highly contagious disease in the healthcare facility of the provider of health services in the Vysočina Region" ("Směrnice pro jednotný postup při vzniku mimořádných událostí podléhající mezinírodním zdravotnickým predpisům v souvislosti s výskytem vysoce nakažlivých nemocí ve zdravotnickém zařízení poskytovalate zdravontických služeb kraje Vysočina"). [http://www.khsjih.cz/soubory/EPID/smernice-vnn.pdf] Accessed 4 October 2020.
[5] Ministry of Health of the Czech Republic. 1.10.2012. Decree No. 306/2012 regulating the conditions for the prevention and spread of infectious diseases and hygienic requirements for the operation of health care facilities and social care institutions (Vyhláška, kterou se upravují podmínky předcházení vzniku a šíření infekčních onemocnění a hygienické požadavky na provoz zdravotnických zařízení a ústavů sociální péče"). [https://www.zakonyprolidi.cz/cs/2012-306/zneni-20121001#p11_f4775307] Accessed 2 November 2020.
[6] Parliament of the Czech Republic. 28.6.2002. Act No. 281/2002 on Certain Measures Related to the Prohibition of Bacteriological (Biological) and Toxin Weapons and on the Amendment of the Trades Licensing Act(Zákon o některých opatřeních souvisejících se zákazem bakteriologických (biologických) a toxinových zbraní a o změně živnostenského zákona). [https://www.zakonyprolidi.cz/cs/2002-281#f6102578] Accessed 2 November 2020.
[7] Litomysl Hospital, Pardubice Region. "Receiving and transporting biological material" ("Příjem a transport biologického materiálu"). [http://litomysl.nempk.cz/sites/default/files/litomyslska-nemocnice/obsah/oddeleni/hematologicko-transfusni-oddeleni/soubory/52transport-biologickeho-materialu.pdf] Accessed 2 November 2020.
[8] Regional Hospital "T.Bati", Zlin. "PRINCIPLES OF CORRECT SAMPLING AND TRANSPORT OF SAMPLES" ("ZÁSADY SPRÁVNÉHO ODBĚRU A TRANSPORTU VZORKŮ"). [https://www.kntb.cz/zasady-spravneho-odberu-a-transportu-vzorku] Accessed 2 November 2020.
[9] Population Protection Institute. In case of threat. [http://www.hzscr.cz/clanek/pro-pripad-ohrozeni-pro-pripad-ohrozeni.aspx] Accessed 4 October 2020.
[10] Institute of Clinical and Experimental Medicine. "C-10 Transport of specimins to the laboratory" ("C -10 Transport vzorků do laboratoře"). [https://www2.ikem.cz/plm_lp/HVEZDALAET.htm] Accessed 4 December 2020

2.2.2 Laboratory cooperation and coordination

2.2.2a

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

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

Current Year Score: 0

There is no publicly available evidence of a plan to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale up testing during an outbreak. There is no evidence of a published plan on the websites of the Ministry of Health or the Public Health Authority, or in relevant legislation – namely Act No. 240/2000 on State Governance in Crisis Situations (Crisis Law), which establishes the powers of the public authorities in the management of crisis situations, as well as the rights and obligations of persons in the preparation for crisis situations, and Act No. 258/2000 on the Protection of Public Health, which establishes the organization and protection of public health, as well as necessary procedures in response to emergencies that seriously endanger public health, such as evacuation, long-term relocation of people, warning the population and supervising the area of contamination to ensure there is no further spread. [1, 2, 3] The National Pandemic Plan 2011 does not contain any such system either. [4]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] Parliament of the Czech Republic. 1.1.2001. Act No. 258/2000 Coll. on the protection of public health and amendments to certain related Acts (Zákon o ochraně veřejného zdraví a o změně některých souvisejících zákonů). [http://www.szu.cz/uploads/documents/czzp/Legislativa/258_2000_Sb.pdf] Accessed 6 October 2020.
[3] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovém řízení a o změně některých zákonů (krizový zákon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 13 October 2020.
[4] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 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: 0

There is no public evidence that the Czech Republic is conducting ongoing event-based surveillance and analysis for infectious disease. Such evidence could not be found on the websites of the Population Protection Institute, the Fire Rescue Service, the National Institute of Public Health, the State Office for Nuclear Safety, the Ministry of Health, the Ministry of Defense, the Ministry of Agriculture, or in relevant legislation on emergency response mechanisms, such as Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws [1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11].

[1] Population Protection Institute. In case of threat. [http://www.hzscr.cz/clanek/pro-pripad-ohrozeni-pro-pripad-ohrozeni.aspx] Accessed 4 October 2020.
[2] The Fire Rescue Service of the Czech Republic. Integrated rescue system (Integrovaný záchranný systém). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 4 October 2020.
[3] The Fire Rescure Service of the Czech Republic. Checks. [http://www.hzscr.cz/clanek/krizove-rizeni-kontroly-kontroly.aspx] Accessed 4 October 2020.
[4] National Institute of Public Health. Centres. [http://www.szu.cz/centra] Accessed 4 October 2020.
[5] Ministry of Defence of the Czech Republic. Structure. [http://www.mocr.army.cz/scripts/detail.php?pgid=587] Accessed 4 October 2020.

[6] Ministry of Agriculture of the Czech Republic. About the Ministry. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/o-ministerstvu/] Accessed 4 October 2020.
[7] Ministry of Agriculture of the Czech Republic. "Concepts and strategies" ("Koncepce a strategie"). [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/koncepce-a-strategie/] Accessed 4 October 2020.
[8] Ministry of Health of the Czech Republic. "Protection of public health" ("Ochrana veřejného zdraví"). [http://www.mzcr.cz/Verejne/obsah/ochrana-verejneho-zdravi_1092_5.html] Accessed 4 October 2020.
[9] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 Coll. On the Integrated Rescue System and the amendment of some laws (o integrovaném záchranném systému a o změně některých zákonů). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 5 October 2020.
[10] The Fire Rescue Service of the Czech Republic. Integrated rescue system (Integrovaný záchranný systém). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 5 October 2020.
[11] State Office for Nuclear Safety. Emergency Response System. [https://www.sujb.cz/en/emergency-preparedness/emergency-response-center/] Accessed 5 October 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 the Czech Republic has reported a potential public health emergency of international concern (PHEIC) to the World Health Organization (WHO) within the last two years. No such evidence – including in relation to COVID-19 – could be found on the websites of the WHO, the Ministry of Health or the National Institute of Public Health [1, 2, 3, 4]. Most recently, the Czech Republic reported new cases of infection of the West Nile Virus to the European Infectious Diseases Reporting System in October 2018 [5].

[1] World Health Organisation. Emergencies preparedness, response: Disease Outbreak News. [http://www.who.int/csr/don/archive/year/2018/en/] Accessed 28 November 2020.
[2] World Health Organisation. Czech Republic. [http://www.euro.who.int/en/countries/czech-republic] Accessed 28 November 2020
[3] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 28 November 2020.
[4] National Institute of Public Health. [http://www.szu.cz/] Accessed 28 November 2020
[5] National Insitute of Public Health. "West Nile Virus, local transmission in the Czech Republic - update as of October 5, 2018" ("Západonilská horečka v Evropě, místní přenos v České republice - aktualizace k 5. říjnu 2018"). [http://www.szu.cz/uploads/Epidemiologie/WNF/Zapadonilska_horecka_5_rijna_2018_aktualizace_na_web_SZU_fin_MZ.pdf] Accessed 28 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 Czech government operates an electronic reporting surveillance system at both the national and sub-national level. From 1993 to the end of 2017, the Epidat Program (an electronic system) was used nationwide in all public health stations as the basis of local, regional and national surveillance of infectious diseases [1, 2]. From 2018 onwards, the system used is now the Information System of Infectious Diseases (IS IN), a version of Epidat that has been upgraded in terms of hardware and software, which obtains information on instances of infectious disease, publicly available online through data and incident reports [3]. IS IN registers a number of pandemic diseases such as cholera, salmonella, and brucellosis, but some infectious diseases, such as tuberculosis, sexually transmitted infections and HIV, are not reported to this system, and are instead monitored by other independent information systems and registers - for example, there is a Registry of Nosocomial Infections for the reporting and surveillance of hospital-related infections, such as Klebsielly and Proteus [3]. Also excluded from IS IN are acute respiratory infections (ARI), which have been incorporated into Geographic Information Systems, the data from which are published by the Regional Hygiene Station in Prague [4, 5].

[1] National Institute of Public Health. Infection in the Czech Republic - EPIDAT. [http://www.szu.cz/publikace/data/infekce-v-cr] Accessed 4 October 2020.
[2] National Institute of Public Health. "Modernization of the Infectious Disease Reporting System (NEW EPIDAT)" ("Modernizace informačního systému hlídání infekčních nemocí (NEW EPIDAT)"). [http://www.szu.cz/modernizace-informacniho-systemu-hlaseni-infekcnich-nemoci] Accessed 4 October 2020.
[3] Institute of Health Information and Statistics of the Czech Republic. Infectious Diseases Information System (IS IN). [http://www.uzis.cz/registry/organu-ochrany-verejneho-zdravi/infekcni-nemoci] Accessed 4 October 2020.
[4] Regional Hygiene Station in Prague. "Acute respiratory infections with GIS (Geographic Information Systems)" ("Akutní respirační infekce pohledem GISů (geografických informačních systémů)"). [http://khsstc.cz/dokumenty/akutni-respiracni-infekce-pohledem-gisu--geografickych-informacnich-systemu--3321_3321_31_1.html] Accessed 9 December 2020.
[5] Regional Hygiene Station in Prague. "Press Release - Information on the epidemiological situation in the occurrence of acute respiratory infections (ARI) including flu in the 6th calendar week 2020" ("Tisková zpráva - informace o epidemiologické situaci ve výskytu akutních respiračních infekcí (ARI) včetně chřipky v 6. kalendářním týdnu 2020"). [http://www.hygpraha.cz/dokumenty/aktualni-vyskyt-hlasenych-akutnich-respiracnich-infekci--ari--v-6--tydnu-roku-2020-na-uzemi-prahy-4557_4557_481_1.html] Accessed 9 December 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic's electronic reporting surveillance system collects ongoing laboratory data. The electronic reporting surveillance system, named the Infectious Diseases Information System (IS IN), has been operating since January 2018 [1]. The IS IN is an upgraded version of the Epidat system, which was in place from 1993 to 2017. The National Institute of Public Health (SZU) states that input of all data to the system was "continuous", whereas output (presentation of data) was weekly [2, 3]. A document published by the SZU clearly states that the system collects laboratory data relating to diseases (examinations and personal contact) [2].

[1] Institute of Health Information and Statistics of the Czech Republic. Infectious Diseases Information System (IS IN). [http://www.uzis.cz/registry/organu-ochrany-verejneho-zdravi/infekcni-nemoci] Accessed 4 October 2020.
[2] National Institute of Public Health. EPIDAT system description. [http://www.szu.cz/uploads/documents/CeM/epidat/Epidat_3_popis.doc] Accessed 4 October 2020.
[3] National Institute of Public Health. "Modernization of the Infectious Disease Reporting System (NEW EPIDAT)" ("Modernizace informačního systému hlášení infekčních nemocí (NEW EPIDAT)"). [http://www.szu.cz/modernizace-

informacniho-systemu-hlaseni-infekcnich-nemoci] Accessed 4 October 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 1

There is evidence that the Czech Republic has an electronic health record (EHR) system in place, but insufficient evidence that EHRs are commonly used. The flagship "Electronic Health Book" system ("Elektronická zdravotní knížka" - IZIP), introduced in 2004, was ended by the Ministry of Health due to a lack of participation in the project by doctors and patients, but in 2013 the largest public health insurance company (VZP) took over and revived the IZIP project [1]. The Czech government has assigned European Union (EU) funds for planned electronization of the Czech healthcare sector between 2014 and 2020, reportedly receiving CZK 8 billion (US$ 350 million) in EU funding for the period [1]. There is a National eHealth Strategy of the Czech Republic in place, currently in a stage of implementation (since 2016), to expand the use of electronic health records to every medical facility and client [2, 3]. Furthermore, since 1 January 2018, there has been an obligation to prescribe medicine using an electronic system, "eRecept", in accordance with Section 81 of Act No. 378/2007, which carries large fines for non-compliance [4]. The Czech Republic currently has a Contact Point for e-Health, which is an information system of the public administration enabling authorized persons to consult EHRs. Those authorized persons are: healthcare providers and providers of social services, where they provide health services; medical rescue service providers; and national e-health contact points set up by other EU states [5]. It is administered by the Ministry of Health [5]. However, many problems with the functioning and coordination of EHRs have been reported, suggesting that their use is not yet common [6].

[1] eZDRAV.cz. "eHealth in the Czech Republic" ("eHealth v ?R"). [http://www.ezdrav.cz/ehealth-v-cr/] Accessed 7 November 2020.
[2] The National eHealth Strategy of the Czech Republic. 2016. "Summary Information for the Entire NSEZ Document" ("Souhrnna informace k celemu dokumentu NSEZ"). [http://www.nsez.cz/obsah/uvod_3556_31.html] Acccessed 7 November2020.
[3] The National eHealth Strategy of the Czech Republic. "Legislation and standards of eHealth in the Czech Republic - News" ("Legislativa a standardy eHealth v ?R - Novinky"). [http://www.nsez.cz/dokumenty/legislativa-a-standardy-ehealth-v-cr_16035_31.html] Accessed 7 November 2020.
[4] ERECEPT. "eRecept in 2018" ("eRecept v roce 2018"). [https://www.epreskripce.cz/erecept-v-roce-2018] Accessed 7 November 2020.
[5] Parliament of the Czech Republic. 1.4.2012. Act No. 372/2011 on health services and conditions of their provision (Health Services Act), (o zdravotních službách a podmínkách jejich poskytování (zákon o zdravotních službách)). [https://www.zakonyprolidi.cz/cs/2011-372] Accessed 3 December 2020.
[6] info.cz. "Health records stood at 130 million, some are not used by the SAO. A criminal complaint will be issued" ("Zdravotní registry stály 130 milionů, některé se podle NKÚ nevyužívají. Padne trestní oznámení"). [https://www.info.cz/cesko/zdravotni-registry-staly-130-milionu-nektere-se-podle-nku-nevyuzivaji-padne-trestni-oznameni-23535.html] Accessed 7 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 Czech national public health system has access to electronic health records (EHRs) of individuals in their country. Act No. 372/2011 on Health Services and Conditions of their Provision creates the National Contact Point for e-Health, an information system run by the Ministry of Health that allows authorized persons to consult EHRs [1]. According to the act, those authorized persons are: healthcare providers and providers of social services, where they provide health services; medical rescue service providers; and national e-health contact points set up by other European Union states [1]. The National Contact Point for e-Health is currently included as a point of improvement within the National eHealth Strategy of the Czech Republic (adopted 2016) [2].

[1] Parliament of the Czech Republic. 1.4.2012. Act No. 372/2011 Coll. on health services and conditions of their provision (Health Services Act), (Zákon o zdravotních službách a podmínkách jejich poskytování (zákon o zdravotních službách)). [https://www.zakonyprolidi.cz/cs/2011-372#cast6] Accessed 31 October 2020.
[2] The National eHealth Strategy of the Czech Republic. 2016. "STRATEGIC GOAL 2. INCREASING THE EFFICIENCY OF THE HEALTHCARE SYSTEM" ("STRATEGICKÝ CÍL 2. ZVýŠENÍ EFEKTIVITY ZDRAVOTNICKÉHO SYSTÉMU"). [http://nsez.mzcr.cz/dokumenty/sc2_12537_31.html] Accessed 31 October 2020.

2.4.1c

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

Yes = 1 , No = 0

Current Year Score: 1

There are data standards in the Czech Republic to ensure data is comparable. The National e-Health Strategy (in implementation phase since 2016) states that data communication in healthcare is provided mainly through the national data standard (DASTA CZ) [1]. This includes the National Contact Point for e-Health, which is the system enabling authorized persons to consult electronic health records [2]. In addition, the National e-Health Strategy commits to the gradual introduction of the SNOMED terminology (Systematized Nomenclature of Medicine) in the Contact Point [1]. In addition, the Institute of Health Information and Statistics of the Czech Republic, which oversees the National Health Information System (NZIS, a collection of public health- and healthcare-related registers) complies with data standards ISO / IEC 27001: 2013 (which requires the establishment, implementation, maintenance and continual improvement of information security management systems), though the NZIS does not include an electronic health record system [2, 3].

[1] Ministry of Health of the Czech Republic. 2016. The National eHealth Strategy of the Czech Republic. 2016. [https://www.dataplan.info/img_upload/7bdb1584e3b8a53d337518d988763f8d/national_ehealth_strategy__v0.2_en.pdf] Accessed 31 October 2020.
[2] Parliament of the Czech Republic. 1.4.2012. Act No. 372/2011 Coll. on health services and conditions of their provision (Health Services Act), (Zákon o zdravotních službách a podmínkách jejich poskytování (zákon o zdravotních službách)). [https://www.zakonyprolidi.cz/cs/2011-372#cast6] Accessed 31 October 2020.
[3] Institute of Health Information and Statistics of the Czech Republic. Basic information about IHIS CR (Základní informace o ÚZIS ČR). [http://www.uzis.cz/nas] Accessed 9 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

There is no clear evidence that Czech ministries responsible for animal, human and wildlife surveillance (Ministry of Health, Ministry of Agriculture, Ministry of the Environment) have an established mechanism for data sharing. The Infectious Diseases Information System (IS IN), formerly Epidat, is the central data collection and sharing database for surveillance and monitoring of diseases, but this is only for diseases that are communicable to humans, and there is no evidence that it is used by the Ministry of Agriculture or the Ministry of the Environment [1, 2]. For the general sharing of information there is no stipulation of a mechanism on the websites of the Ministry of Health, Ministry of Agriculture, Ministry of the Environment, National Institute of Public Health, the Czech Agriculture and Food Inspection Authority, or in Act No. 258/2000 on the Protection of Public Health and on Amendments to Certain Related Acts [3, 4, 5, 6, 7, 8].

[1] Institute of Health Information and Statistics of the Czech Republic. Infectious Diseases Information System (IS IN), (Informační systém infekční nemoci (IS IN)). [http://www.uzis.cz/registry/organu-ochrany-verejneho-zdravi/infekcni-nemoci] Accessed 12 November 2020.
[2] National Institute of Public Health. "Modernizing the infectious disease reporting information system (NEW EPIDAT)" ("Modernizace informačního systému hlídání infekčních nemocí (NEW EPIDAT)") [http://www.szu.cz/modernizace-informacniho-systemu-hlaseni-infekcnich-nemoci] Accessed 12 November 2020.
[3] Czech Agriculture and Food Inspection Authority. "Organisational structure" ("Organizacni struktura"). [http://www.szpi.gov.cz/organizacni-struktura.aspx] Accessed 2 November 2020.
[4] Ministry of Health of the Czech Republic. "Organisational scheme" ("Organizační schéma"). [https://www.mzcr.cz/dokumenty/organizacni-schema_4221_841_1.html] Accessed 2 November 2020.
[5] National Institute of Public Health. "About SZU" ("O SZU"). [http://www.szu.cz/o-szu] Accessed 2 November 2020.
[6] Ministry of Agriculture of the Czech Republic. "Organisational structure of MZe" ("Organizační struktura MZe"). [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/o-ministerstvu/organizacni-struktura/] Accessed 2 November 2020.
[7] Parliament of the Czech Republic. 1.1.2001. Act No. 258/2000 on the Protection of Public Health and on Amendments to Certain Related Acts (o ochraně veřejného zdraví a o změně některých souvisejících zákonů). [https://www.zakonyprolidi.cz/cs/2000-258] Accessed 2 November 2020.
[8] Ministry of the Environment of the Czech Republic. [https://www.mzp.cz/] Accessed 9 December 2020.

2.4.3 Transparency of surveillance data

2.4.3a

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic makes de-identified health surveillance data on disease outbreaks publicly available on a weekly basis. The page of the website of the National Institute of Public Health regularly (approximately once per week) publishes de-identified health surveillance data on the number of cases of particular disease outbreaks [1]. The National Institute of Public Health has also published a number of very detailed statistical reports on the extent of outbreak of each disease recorded in the Czech Republic in each year, through the new Infectious Disease Information System (IS IN, launched on 1 January 2018) and its predecessor (Epidat) [2].

[1] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 November 2020.
[2] National Institute of Public Health. Infection in the Czech Republic - EPIDAT. [http://www.szu.cz/publikace/data/infekce-v-cr?lang=1] Accessed 4 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

The Czech Republic makes de-identified COVID-19 surveillance data available via daily reports on government websites. At the beginning of the COVID-19 pandemic, the Ministry of Health launched a dedicated website, koronavirus.mzcr.cz, on which all coronavirus-related information is consolidated, including a daily case count, test count, hospitalization count and mortality rate. These data are also offered in the form of graphs, maps (showing cases in each region) and more detailed analysis. [1, 2]

[1] Ministry of Health. "Updates on Coronavirus". ("AktuÃ¡lnÃ informace o COVID"). [https://koronavirus.mzcr.cz/]. Accessed 20 November 2020.
[2] Ministry of Health. "Covid 19: Situation overview." ("Covid 19: AktuÃ¡lnÃ pÅ™ehled situace"). [https://onemocneni-aktualne.mzcr.cz/covid-19]. Accessed 20 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

There are regulations in place that safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance. Section 55 of Act No. 372/2011 on Health Services and Conditions of their Provision states that when retaining copies for long-term preservation of health information on a technical data medium, access to such data is only granted to authorized persons and their legibility is ensured for at least the period laid down for the retention of medical records [1, 2]. These regulations are followed by the Institute of Health Information and Statistics of the Czech Republic (UZIS), which has been entrusted by the Ministry of Health with the administration of the National Health Information System (NZIS), a collection of health registers, including individual patient information [3]. On its website, UZIS claims to keep all data only in its own protected databases or on its specially secure servers in the Czech Republic [8]. Its systems meet ISO 9001: 2008 quality management requirements and ISO / IEC 27001: 2013 information security

management requirements [4]. According to UZIS, only a narrow circle of people with special permission may access data, and UZIS only passes it on to others if the law so requires. The recipients and the narrow circle of people are under an obligation of confidentiality [5]. To enhance the privacy measures of USIZ, it plans to replace all patient identification data with an anonymous identifier (AIFO), which will not allow anyone to directly identify the data in the NZIS [6, 7, 8]. The Office for Personal Data Protection and individual Personal Data Protection Officers are responsible for the enforcement of these regulations and for ensuring these protection measures are upheld [6, 8, 9] In addition, the confidentiality of identifiable health information for individuals is safeguarded by the EU General Data Protection Regulation, which came into force in May 2018. [10]

[1] State Institute for Drug Control (SÃšKL). Protection of personal data. [http://www.sukl.cz/ochrana-osobnich-udaju] Accessed 6 November 2020.
[2] Parliament of the Czech Republic. 1.4.2012. Act No. 372/2011 Coll. on health services and conditions of their provision (Health Services Act), (ZÃ¡kon o zdravotnÃch sluÅ¾bÃ¡ch a podmÃnkÃ¡ch jejich poskytovÃ¡nÃ (zÃ¡kon o zdravotnÃch sluÅ¾bÃ¡ch)). [https://www.zakonyprolidi.cz/cs/2011-372#f4438559] Accessed 6 October 2020.
[3] Institute of Health Information and Statistics of the Czech Republic. Personal Data Protection Officer. [http://www.uzis.cz/node/7734] Accessed 6 November 2020.
[4] Institute of Health Information and Statistics of the Czech Republic. Information about NZIS (Informace o NZIS). [https://www.uzis.cz/nas/informace-nzis] Accessed 6 December 2020.
[5] Institute of Health Information and Statistics of the Czech Republic. Basic information on processing your personal information (ZÃ¡kladnÃ informace o zpracovÃ¡nÃ VaÅ¡ich osobnÃch Ãºdaj?). [https://www.uzis.cz/nas/osobni-udaje/zakladni-informace-o-zpracovani-vasich-osobnich-udaju] Accessed 6 November 2020.
[6] Parliament of the Czech Republic. 1.6.2000. Act No. 101/2000 Coll. On the protection of personal information (o ochran? osobnÃch ÃºdajÅ¯. [https://www.uoou.cz/files/101_cz.pdf] Accessed 6 October 2020.
[7] Ministry of Health of the Czech Republic. "Frequently asked questions and answers about electronic prescriptions" ("NejÄ&#65533;astÄ›ji kladenÃ© otÃ¡zky a odpovÄ›di k elektronickÃ½m receptÅ¯m"). [https://www.mzcr.cz/obsah/informace-o-ereceptech_3817_1.html] Accessed 6 November 2020.
[8] The Office for Personal Data Protection. Areas of processing personal data. [https://www.uoou.cz/oblasti-zpracovani-osobnich-udaju/ds-1267/p1=1267#ob26] Accessed 6 November 2020.
[9] Institute of Health Information and Statistics of the Czech Republic. National Health Information System (NZIS) Legislation. [http://www.uzis.cz/nas/informace-nzis/legislativa-nzis] Accessed 6 November 2020.
[10] 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 14 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

Guidelines safeguarding the confidentiality of identifiable health information for individuals mention protection from cyber attacks. Whilst public health and data protection legislation (Act No. 110/2019 on the protection of personal information, Act No. 372/2011 on health services and conditions of their provision, Act No. 258/2000 on the protection of public health and amendments to certain related Acts) does not explicitly refer to protection from cyber attacks, the Ministry of Health does make clear on its website that, for example, the data of the Central Repository of Electronic Prescriptions (CÃšER) and the "eRecept" information system is protected against both accidental loss in emergencies and deliberate attacks [1, 2, 3, 4, 5]. Furthermore, according to the Ministry of Health, the "eRecept" information system itself and all data are also protected by the requirements of the Cyber Security Act using modern security technologies [6]. The precise technologies are not specified by the Ministry of Health, however, the CÃšER system was tested from July to September 2018 by the National Office for Cybernetics and Information Security (NÃšKIB) for, inter alia, strength of defense against cyber attacks [7]. The test results showed not only the good functioning of the repository but also the responsible approach of the State Institute for Drug Control (SÃšKL), which operates CÃšER, and the approach of its management to the obligation to verify the reliability and credibility of its information systems [7]. In addition, the confidentiality of identifiable health information for individuals is safeguarded by the European Union's General Data Protection Regulation (GDPR), which came into force in May 2018. GDPR contains stipulations around network and information security, including a requirement that data held by state authorities must be overseen by a dedicated data protection officer who is proficient in dealing with cyber attacks and a requirement to inform all affected individuals within 72 hours of discovering a data breach. [8]

[1] Act No. 110/2019 Coll. on the processing of personal information (o zpracovÃ¡nÃ osobnÃch ÃºdajÅ¯). [https://www.zakonyprolidi.cz/cs/2019-110] Accessed 6 October 2020.
[2] Parliament of the Czech Republic. 1.4.2012. Act No. 372/2011 Coll. on health services and conditions of their provision (Health Services Act), (ZÃ¡kon o zdravotnÃch sluÅ¾bÃ¡ch a podmÃnkÃ¡ch jejich poskytovÃ¡nÃ (zÃ¡kon o zdravotnÃch sluÅ¾bÃ¡ch)). [https://www.zakonyprolidi.cz/cs/2011-372#f4438559] Accessed 6 October 2020.
[3] Parliament of the Czech Republic. 1.1.2001. Act No. 258/2000 Coll. on the protection of public health and amendments to certain related Acts (ZÃ¡kon o ochranÄ› veÅ™ejnÃ©ho zdravÃ a o zmÄ›nÄ› nÄ›kterÃ½ch souvisejÃcÃch zÃ¡konÅ¯). [http://www.szu.cz/uploads/documents/czzp/Legislativa/258_2000_Sb.pdf] Accessed 6 October 2020.
[4] The Office for Personal Data Protection. Areas of processing personal data. [https://www.uoou.cz/oblasti-zpracovani-osobnich-udaju/ds-1267/p1=1267#ob26] Accessed 6 October 2020.
[5] Institute of Health Information and Statistics of the Czech Republic. National Health Information System (NZIS) Legislation. [http://www.uzis.cz/nas/informace-nzis/legislativa-nzis] Accessed 6 October 2020.
[6] Ministry of Health of the Czech Republic. "Frequently asked questions and answers about electronic prescriptions" ("NejÄ&#xfffd;astÄ›jÅ¡Ã otÃ¡zky a odpovÄ›di k elektronickÃ½m receptÅ¯m"). [https://www.mzcr.cz/obsah/informace-o-ereceptech_3817_1.html] Accessed 6 October 2020.
[7] ERECEPT. 19.10.2018. "The Central Reposatory of Electronic Prescriptions passed a test" ("CentrÃ¡lnÃ ÃºloÅ¾iÅ¡tÄ› elektronickÃ½ch receptÅ¯ proÅ¡lo bezpeÄ&#xfffd;nostnÃm testem"). [https://www.epreskripce.cz/aktuality/centralni-uloziste-elektronickych-receptu-proslo-bezpecnostnim-testem] Accessed 30 November 2020.
[8] 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 30 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, Yes, commitments have been made to share data only for one disease = 1, No = 0

Current Year Score: 2

The Czech government has made a commitment via a government action plan to share surveillance data during a public health emergency with other countries in the region, for more than one disease. The National Action Plan of the Czech Republic for an Event Subject to the International Health Regulations, published in 2011, stipulates that in the incidence of infectious diseases with possible or proven international impacts, the Czech government ensures the transmission of information on the incident to the European Union Early Warning Response System [1]. As a European Union (EU) member, the Czech Republic shares surveillance data during a public health emergency with other countries in the region. All EU and EEA countries are part of the European Centre for Disease Prevention and Controls 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 in supporting response to health crises related to severe acute respiratory syndrome (SARS), Ebola virus disease, avian influenza in humans and other communicable diseases. [2] Article 9 of Chapter IV of the EU Decision on Serious Cross-Border Threats to Health notes that the European Commission shall make available to the national competent authorities through the EWRS any information that may be useful for coordinating the response including information related to serious cross-border threats to health and public health measures related to serious cross-border threats to health transmitted through rapid alert and information systems established under other provisions of EU law or the Euratom Treaty. [3]

[1] Government of the Czech Republic. 2011. "National Action Plan of the Czech Republic in an Event subject to International Health Regulations (2005)", ("Národní akční plán ČR pro případ vzniku události podléhající Mezinárodním zdravotnickým předpisům (2005)"). [https://www.infekce.cz/Legislativa/Usnes2011-785.pdf] Accessed 4 January 2020.
[2] 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 4 January 2020.
[3] 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 4 January 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

There is no publicly available evidence that the Czech Republic has 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. There is no such evidence on the websites of the Ministry of Health or the National Institute of Public Health [1,2]. There are no such provisions in Act No. 240/2000 on State Governance in Crisis Situations, which outlines state responses to crises, or Act No. 258/2000 on the Protection of Public Health, which includes procedures for response to emergencies that seriously endanger public health, such as evacuation, long-term relocation of people, warning the population and supervising the area of contamination to ensure there is no further spread. [3, 4] No relevant provisions are included in the National Pandemic Plan 2011. [5]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 November 2020.
[3] Parliament of the Czech Republic. 1.1.2001. Act No. 258/2000 Coll. on the protection of public health and amendments to certain related Acts (ZÃ¡kon o ochranÄ› veÅ™ejnÃ©ho zdravÃ a o zmÄ›nÄ› nÄ›kterÃ½ch souvisejÃcÃch zÃ¡konÅ¯).
[http://www.szu.cz/uploads/documents/czzp/Legislativa/258_2000_Sb.pdf] Accessed 6 October 2020.
[4] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovÃ©m Å™ÃzenÃ a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯ (krizovÃ½ zÃ¡kon).
[https://www.zakonyprolidi.cz/cs/2000-240] Accessed 13 October 2020.
[5] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 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 the Czech Republic provides wraparound services to enable infected people and their contacts to self-isolate or quarantine as recommended, particularly economic support (paycheck, job security) and medical attention.There is no such evidence on the websites of the Ministry of Health or the Public Health Authority or in Act No. 240/2000 on State Governance in Crisis Situations (which governs crisis response) or Act No. 258/2000 on the Protection of Public Health (which governs public health, including healthcare-related emergency response). [1, 2, 3] No evidence of such plan has been found in the National Pandemic Plan 2011. [4] Act No. 187/2006 on Health Insurance (which governs statutory health insurance) states that all employees who are ordered by the health authority to self-quarantine for 14 days or longer have the right to recieve 60% of their wages during the first 14 days of the quarantine, but those required to quarantine for less than 14 days have no right for any compensation, and neither do self-employed people. [5] On the websites of the Ministry of Health and the Czech government, there is no evidence that the government has introduced additional

wraparound services during the COVID-19 pandemic [6, 7].

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] Parliament of the Czech Republic. 1.1.2001. Act No. 258/2000 Coll. on the protection of public health and amendments to certain related Acts (Zákon o ochraně veřejného zdraví a o změně některých souvisejících zákonů). [http://www.szu.cz/uploads/documents/czzp/Legislativa/258_2000_Sb.pdf] Accessed 6 October 2020.
[3] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovém řízení a o změně některých zákonů (krizový zákon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 13 October 2020.
[4] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[5] Parliament of the Czech Republic. 12.5.2006. Act No. 187/2006 on Health Insurance (Zákon o nemocenském pojištění). [https://www.zakonyprolidi.cz/cs/2006-187#f3035637] Accessed 13 October 2020.
[6] Ministry of Health. "Updates on Coronavirus". ("Aktuální informace o COVID"). [https://koronavirus.mzcr.cz/]. Accessed 20 November 2020.
[7] Government office of the Czech Republic. "Covid Portal." ("Covid Portál"). [https://covid.gov.cz/]. Accessed November 2020.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

The Czech Republic does make de-identified data on contact tracing efforts for COVID-19 available, but via weekly and not daily reports. At the beginning of the COVID-19 pandemic, the Ministry of Health launched a dedicated website, koronavirus.mzcr.cz, on which all coronavirus-related information is consolidated, including aggregate data on the number of cases identified through contact tracing. These data are updated on a weekly basis, and are also offered in the form of graphs, maps (showing cases in each region) and more detailed analysis. [1, 2]

[1] Ministry of Health. "Updates on Coronavirus". ("AktuÃ¡lnÃ informace o COVID"). [https://koronavirus.mzcr.cz/]. Accessed 20 November 2020.
[2] Ministry of Health. "Covid 19: Situation overview." ("Covid 19: AktuÃ¡lnÃ pÅ™ehled situace"). [https://onemocneni-aktualne.mzcr.cz/covid-19]. Accessed 20 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: 0

There is no publicly available evidence of a joint plan or cooperative agreement between the public health system and border control authorities to monitor suspected and potential cases for international travelers and trace and quarantine their contacts in the event of an active or future public health emergency. No such cooperation is mentioned in Act No. 240/2000 on State Governance in Crisis Situations, which outlines state responses to crises, or in Act No. 258/2000 on the Protection of Public Health, governs public health and healthcare-related emergency response. [3, 4] No such cooperation is mentioned in the National Pandemic Plan 2011. [5] However, there is an ad hoc arrangement in place regarding COVID-19: in March 2020, the Ministry of Health issued a decree ordering all Czech citizens entering the country after visiting high-risk locations to submit themselves for testing, which should be conducted with in cooperation with the police. [6, 7]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 November 2020.
[3] Parliament of the Czech Republic. 1.1.2001. Act No. 258/2000 Coll. on the protection of public health and amendments to certain related Acts (ZÃ¡kon o ochranÄ› veÅ™ejnÃ©ho zdravÃ a o zmÄ›nÄ› nÄ›kterÃ½ch souvisejÃcÃch zÃ¡konÅ¯). [http://www.szu.cz/uploads/documents/czzp/Legislativa/258_2000_Sb.pdf] Accessed 6 October 2020.
[4] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovÃ©m Å™ÃzenÃ a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯ (krizovÃ½ zÃ¡kon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 13 October 2020.
[5] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[6] Ministry of Health. "Emergency Action - Border contros in the case of symptoms of infectious disease." ("MimoÅ™Ã¡dnÃ© opatÅ™enÃ â€“ hraniÄ&#65533;nÃ kontroly pÅ™ÃznakÅ¯ infekÄ&#65533;nÃho onemocnÄ›nÃ"). [https://www.mzcr.cz/mimoradne-opatreni-hranicni-kontroly-priznaku-infekcniho-onemocneni/]. Accessed 5 November 2020.
[7] Ministry of Interior. "Emergency Action - on the temporary reintroduction of protection of the internal borders of the Czech Republic." ("OpatÅ™enÃ vlÃ¡dy o doÄ&#65533;asnÃ©m znovuzavedenÃ ochrany vnitÅ™nÃch hranic ÄŒeskÃ© republiky). [https://www.mvcr.cz/clanek/opatreni-vlady-o-prodlouzeni-docasneho-znovuzavedeni-ochrany-vnitrnich-hranic-ceske-republiky.aspx]. Accessed 5 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

Applied epidemiology training programs are available in the Czech Republic, and the Czech government provides resources to send citizens to participate in such programs in other countries. The Czech Republic offers an applied epidemiology training programme for EPIET fellows, based in various National Reference Laboratories at the Center for Epidemiology and Microbiology (CEM) [1, 2, 3]. EPIET is one path – the "Field epidemiology path" – of a training program provided by the Centre for Disease Prevention and Control (ECDC), which focuses on intervention epidemiology in surveillance centers around Europe. [4]. The Czech government also provides resources to send citizens abroad to participate in EPIET [4, 5].

[1] European Centre for Disease Prevention and Control. National Institute of Public Health. [https://ecdc.europa.eu/en/national-institute-public-health-niph-0] Accessed 9 October 2020.
[2] The International Association of National Public Health Institutes. Czech Republic. [http://www.ianphi.org/membercountries/memberinformation/czechrepublic.html] Accessed 9 October 2020.
[3] National Institute of Public Health. Department of Epidemiology of Infectious Diseases. [http://www.szu.cz/oddeleni-epidemiologie-infekcnich-onemocneni?lang=1] Accessed 9 October 2020.
[4] European Centre for Disease Prevention and Control. "Call for ECDC Fellowship Programme (EPIET and EUPHEM paths)". [https://ecdc.europa.eu/en/about-us/work-us/call-ecdc-fellowship-programme-epiet-and-euphem-paths] Accessed 9 December 2020.
[5] European Centre for Disease Prevention and Control. Fellowship programme: EPIET/EUPHEM: About the fellowship. [https://ecdc.europa.eu/en/epiet-euphem/about] Accessed 1 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

The Czech Republic's available field epidemiology training programmes are inclusive of animal health professionals. The Czech Republic offers an applied epidemiology training programme for EUPHEM and EPIET fellows, based in various National Reference Laboratories at the Centre for Epidemiology and Microbiology (CEM) [1, 2, 3]. EPIET is one path – the "field epidemiology path" – of a training program provided by the Center for Disease Prevention and Control (ECDC), which focuses on intervention epidemiology in surveillance centres around Europe, whereas EUPHEM is the other path – the "public health microbiology path" – of the same training program, and aims to provide training rather in laboratories with public health functions [4]. According to the website of the European Centre for Disease Prevention and Control, EUPHEM (Public Health Microbiology Path) is aimed at EU microbiologists with a medical, veterinary or environmental microbiology background, and EPIET is also inclusive of animal health professionals [1, 2, 3, 5, 6].

[1] European Centre for Disease Prevention and Control. National Institute of Public Health. [https://ecdc.europa.eu/en/national-institute-public-health-niph-0] Accessed 9 October 2020.
[2] The International Association of National Public Health Institutes. Czech Republic. [http://www.ianphi.org/membercountries/memberinformation/czechrepublic.html] Accessed 9 October 2020.
[3] National Institute of Public Health. Department of Epidemiology of Infectious Diseases. [http://www.szu.cz/oddeleni-

epidemiologie-infekcnich-onemocneni?lang=1] Accessed 9 October 2020.
[4] European Centre for Disease Prevention and Control. "Call for ECDC Fellowship Programme (EPIET and EUPHEM paths)". [https://ecdc.europa.eu/en/about-us/work-us/call-ecdc-fellowship-programme-epiet-and-euphem-paths] Accessed 9 December 2020.
[5] European Centre for Disease Prevention and Control. Fellowship programme: EPIET/EUPHEM: About the fellowship. [https://ecdc.europa.eu/en/epiet-euphem/about] Accessed 1 November 2020.
[6] European Centre for Disease Prevention and Control. Call for ECDC Fellowship Programme (EPIET and EUPHEM paths). [https://ecdc.europa.eu/en/about-us/work-us/call-ecdc-fellowship-programme-epiet-and-euphem-paths] Accessed 9 December 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 2

The Czech Republic has an overarching national public health emergency reponse plan in place, which addresses planning for multiple communicatble disease with epidemic or pandemic potential. The National Pandemic Plan, which was adopted in 2011, primarily aims to prepare the Czech Republic for an influenza epidemic, but it also notes: "experience has also shown that the threat of new infectious diseases (such as SARS) requires the implementation of measures to a large extent identical to those applied during influenza virus pandemics. Thus, the pandemic plan has been adapted so that it may be applied as necessary in such situations." [1] This plan aims to ease the health and economic burdens on the population in the case of

such as epidemic; and set out the responsibilities of the state administration and professional bodies which manage, ensure and perform activities related to public health protection [1].

[1] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 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: 0

The Czech Republic's overarching national public health emergency response plan has not been updated in the last 3 years. The National Pandemic Plan was approved in 2011 and there is no evidence that it has ever been updated, amended or replaced. [1] There is no further relevant evidence on the websites of the Ministry of Health or the National Institute of Public Health. [2, 3]

[1] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 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 no evidence that the Czech Republic's overarching national public health emergency response plan includes considerations for pediatric or other vulnerable populations. The National Pandemic Plan, which was published in 2011, identifies senior citizens, people with damaged immunity and medical personnel as groups particularly vulnerable towards infectious diseases, especially influenza, but it does not outline any specific considerations, treatments or measures to protect these groups. [1] There is no further relevant evidence on the websites of the Ministry of Health or the National Institute of Public Health. [2, 3]

[1] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 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: 1

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Czech Republic has a clearly specified mechanism for engaging with the private sector to assist with outbreak emergency preparedness and response. Whilst Czech Republic's crisis plans and regulations, including related legislation (Act No. 239/2000, Act No. 240/2000) and the websites of the Ministry of Health, Ministry of the Interior, and the Fire Rescue Service, stipulate that intersectoral cooperation is fundamental to emergency preparedness and response, there are no details on a specific mechanism for engaging with the private sector [1, 2, 3, 4, 5, 6]. Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws defines the components and tasks of the Integrated Rescue System, a system for the cooperation and coordination of rescue and security forces, state administration, natural and legal persons in the joint execution of rescue and disposal operations and emergency preparedness [2]. Act No. 240/2000 on Crisis Management and on Amendment to Certain Acts (Crisis Act) establishes the powers and responsibilities of state agencies and local government units, as well as the rights and obligations of legal entities and individuals in preparing for crisis situations [6].

[1] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Parliament of the Czech Republic. 1.1.2001. Act 239/2000 Coll. On the Integrated Rescue System and the amendment of some laws (Zákon o integrovaném záchranném systému a o změně některých zákonů). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 5 November 2020.
[3] Ministry of Health of the Czech Republic. "Protection of public health" ("Ochrana veřejného zdraví"). [http://www.mzcr.cz/legislativa/obsah/vytvareni-a-ochrana-zdravych-zivotnich-podminek_1789_11.html] Accessed 5 November 2020.
[4] The Fire Rescue Service of the Czech Republic. Integrated rescue system (Integrovaný záchranný systém). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 5 November 2020.
[5] The Fire Rescure Service of the Czech Republic. Crisis Planning. [http://www.hzscr.cz/clanek/krizove-rizeni-a-cnp-krizove-planovani-krizove-planovani.aspx] Accessed 4 January 2020.
[6] Parliament of the Czech Republic. 1.1.2001. Act 240/2000 on Crisis Management and on Amendment to Certain Acts (Crisis Act), (Krizový zákon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 4 Janurary 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 2

The Czech Republic has a plan to implement non-pharmaceutical interventions (NPIs) during an epidemic or pandemic, and it addresses more than one disease. The National Pandemic Plan, which was adopted in 2011, names numerous NPIs to prevent the spread of infectious diseases, including the thorough washing of hands, voluntary isolation of patients, contact tracing, restrictions on public transport and restrictions on gatherings. [1] The plan states that such measures should be introduced in the initial phases of an outbreak of any infectious disease, in order to help gain the time necessary to amass more data about the disease and to develop and acquire vaccines, but the plan does not provide any more specific criteria for when particular NPIs should be introduced. [1] There is no further relevant evidence on the websites of the Ministry of Health or the National Institute of Public Health. [2, 3]

[1] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 30 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

In the past year, the Czech Republic has activated its national emergency response plan for an infectious disease, but there is no public evidence that it has completed a national-level exercise focused on a biological threat. On 12 March 2020, in response to the COVID-19 pandemic, the Czech government announced a state of emergency, which lasted until 17 May 2020. [1] On 5 October 2020, due to the pandemic worsening again, the Czech government announced a new state of emergency, which has been extended several times and is currently scheduled to last until 23 December 2020. [2] Similarly, following the measures described in the National Pandemic Plan, the Czech Government has decided to establish a Central Crisis Staff led by the deputy prime minister Jan Hamáček. Consequently, Hamáček have decided to activate regional crisis plans as outlined by the National Pandemic Plan [3, 4, 5]. Since the start of the first state of emergency, the Czech government has introduced a wide range of response measures, including border closures, restrictions on gatherings, closure

of schools, requirements to wear masks in certain situations, and the construction of field hospitals. [3, 6] All of these measures are in line with and explicitly mentioned in the National Pandemic Plan. [5] There is no evidence that the Czech Republic has completed a national-level biological threat-focued exercise on the websites of the World Health Organization, the Ministry of Health, the Ministry of Agriculture, the Ministry of the Defense or the Public Health Authority. [7, 8, 9, 10]

[1] Kafkadesk. 18 May 2020. "State of emergency in the Czech Republic officially over." [https://kafkadesk.org/2020/05/18/state-of-emergency-in-the-czech-republic-officially-over/]. Accessed 11 December 2020.
[2] Government Office of the Czech Republic. "State of Emergency." ("Nouzový stav"). [https://www.vlada.cz/cz/epidemie-koronaviru/dulezite-informace/nouzovy-stav-a-mimoradna-opatreni-_-co-aktualne-plati-180234/]. Accessed 11 December 2020
[3] Government Office of the Czech Republic. "Overview of the governmental decrees since the beginning of the crisis state." ("Přehled vládních usnesení od vyhlášení nouzového stavu"). [https://www.vlada.cz/cz/epidemie-koronaviru/dulezite-informace/prehled-vladnich-usneseni-od-vyhlaseni-nouzoveho-stavu-180608/]. Accessed 11 December 2020.
[4] Ministry of Interior Affairs. 23 September 2020. "Central Crisis Staff: Worst-case scenarious have not happened yet." ("Ústřední krizový štáb: Nejhorší scénáře se zatím nenaplňují, posílíme mobilní volební komise pro lidi v karanténě "). [https://www.mvcr.cz/clanek/ustredni-krizovy-stab-nejhorsi-scenare-se-zatim-nenaplnuji-posilime-mobilni-volebni-komise-pro-lidi-v-karantene.aspx].
[5] Government of the Czech Republic. "Pandemic Plan" ("Pandemický plán"). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[6] Rob Cameron. 26 October 2020. "Covid-19: How the Czech Republic's response went wrong." BBC News. [https://www.bbc.com/news/world-europe-54639351]. Accessed 11 December 2020.
[7] World Health Organisation. "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise]. Accessed 21 January 2021.
[8] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[9] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[10] Ministry of Defense of the Czech Republic. Structure. [http://www.mocr.army.cz/scripts/detail.php?pgid=587] Accessed 4 October 2020.
[11] National Institute of Public Health. [http://www.szu.cz/] Accessed 9 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 no publicly available evidence that the Czech Republic has in the past year identified a list of gaps and best practices in response and developed a plan to improve response capabilities. There is no such evidence on the websites of the Ministry of Health, the Public Health Authorty, or on the World Health Organisation's After Action Review web pages, its country pages or regional pages. [1, 2, 3, 4]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] World Health Organisation. After Action Review. [https://www.who.int/ihr/procedures/after-action-review/en/]. Accessed 19 October 2020.

[3] World Health Organisation. Europe. [https://www.euro.who.int/en/home]. Accessed 19 October 2020.
[4] World Health Organisation. Czechia. [https://www.euro.who.int/en/countries/czechia]. Accessed 19 October 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that in the past year the Czech Republic has undergone a national-level biological threat-focused exercise that has included private sector representatives. No such evidence was found on the World Health Organization (WHO) extranet, the WHO's simulation exercise page, its country or regional webpages, or on the websites of the Ministry of Health, the Ministry of Defense or the Ministry of Agriculture and Rural Development. [1, 2, 3, 4, 5]

[1] World Health Organisation. "After action review". [https://extranet.who.int/sph/after-action-review]. Accessed 29 September 2020.
[2] World Health Organisation. Simulation Exercise. [https://extranet.who.int/sph/simulation-exercise]. Accessed 19 October 2020.
[3] World Health Organisation. Europe. [https://www.euro.who.int/en/home]. Accessed 29 September 2020.
[4] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[5] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[6] Ministry of Defence of the Czech Republic. Structure. [http://www.mocr.army.cz/scripts/detail.php?pgid=587] Accessed 4 October 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

The Czech Republic has an emergency operations center in place for public health emergencies. The Czech Republic's Integrated Rescue System (IZS) is a system for the coordination and cooperation of the different actors involved in emergency response and preparedness, including for public health emergencies. [1, 2] The IZS is coordinated by Operational and Information Centers (OICs), which are required by law to receive and evaluate information on emergencies and to mediate the organization of fulfilment of response tasks. [1, 2]

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 Coll. On the Integrated Rescue System and the amendment of some laws (o integrovanÃ©m zÃ¡chrannÃ©m systÃ©mu a o zmÄ›nÃ¡ch nÄ›kterÃ½ch zÃ¡konÅ¯). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 5 October 2020.

[2] The Fire Rescue Service of the Czech Republic. Integrated rescue system (IntegrovanÃ½ zÃ¡chrannÃ½ systÃ©m). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 5 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 evidence that the Czech Republic's emergency operations center (EOC) is required to conduct a drill for public health emergencies at least once per year, or that it does so in practice. In the Czech Republic, the role of EOC is fulfilled by the Operational and Information Centres (OIC) of the Integrated Rescue System (IZS), the functions and duties of which are governed by Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws. [1, 2] This act does include a section on training and drills, but it does not explicitly state that it is a requirement for drills to be conducted at least once per year [1]. The website of the Fire Rescue Service of the Czech Republic has published an exercise plan for the IZS for the period 2018-2020, which includes at least one drill per year, and the website also indicates that the IZS has conducted one major drill exercise each year from 2010 to 2018. Nevertheless, there is no evidence, either on the website or in local media, that such excercises were conducted in the years 2019 or 2020 [3]. Moreover, the past exercises were not for public health emergencies, but rather training for response to floods and similar natural disasters [2]. There is no further relevant evidence on the websites of Ministry of Health, Ministry of Interior, Ministry of Defense or the Public Health Authority [4, 5, 6, 7].

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 Coll. On the Integrated Rescue System and the amendment of some laws (o integrovaném záchranném systému a o změně některých zákonů). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 5 October 2020.
[2] The Fire Rescue Service of the Czech Republic. Integrated rescue system (Integrovaný záchranný systém). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 5 October 2020.
[3] The Fire Rescue Service of the Czech Republic. "Exercise of Crisis Management Bodies" ("Cvičení orgánů krizového řízení"). [http://www.hzscr.cz/clanek/krizove-rizeni-a-cnp-cviceni-organu-krizoveho-rizeni-cviceni-organu-krizoveho-rizeni.aspx?q=Y2hudW09MQ%3d%3d] Accessed 5 October 2020.
[4] Ministry of Interior. [https://www.mvcr.cz]. Accessed 5 November 2020.
[5] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[6] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz] Accessed 4 October 2020.
[7] National Institute of Public Health. [http://www.szu.cz/] Accessed 9 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 that the Czech Republic's emergency operations center (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. In the Czech Republic, the role of EOC is fulfilled by the Operational and Information Centres (OIC) of the Integrated Rescue System (IZS), the functions and duties of which are governed by Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws. [1, 2] The website of the Fire Rescue Service of the Czech Republic has published an exercise plan for the IZS for the period 2018-2020 which includes at least one drill per year, and the website also indicates that the IZS has conducted one major drill exercise each year from 2010 to 2018. However, there is no evidence, either on the website or in local media, that such excercises have been conducted in the years 2019 or 2020 [3]. Moreover, the previous exercises were not for public health emergencies, but rather training for response to floods and similar natural disasters [2]. There is no further relevant evidence on the websites of Ministry of Health, Ministry of Interior, Ministry of Defence or the Public Health Authority [4, 5, 6, 7].

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 Coll. On the Integrated Rescue System and the amendment of some laws (o integrovaném záchranném systému a o změně některých zákonů). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 5 October 2020.
[2] The Fire Rescue Service of the Czech Republic. Integrated rescue system (Integrovaný záchranný systém). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 5 October 2020.
[3] The Fire Rescue Service of the Czech Republic. "Exercise of Crisis Management Bodies" ("Cvičení orgánů krizového řízení"). [http://www.hzscr.cz/clanek/krizove-rizeni-a-cnp-cviceni-organu-krizoveho-rizeni-cviceni-organu-krizoveho-rizeni.aspx?q=Y2hudW09MQ%3d%3d] Accessed 5 October 2020.
[4] Ministry of Interior. [https://www.mvcr.cz]. Accessed 5 November 2020.
[5] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[6] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz] Accessed 4 October 2020.
[7] National Institute of Public Health. [http://www.szu.cz/] Accessed 9 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 no evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event, but there is evidence of guidelines for public health and security authorities to respond to a potential deliberate biological event. In November 2017, the Biological Protection Department at Tichonín practised the reception, comprehensive care and treatment of persons with highly contagious diseases, but this was not a simulation exercise for a deliberate biological event [1]. The Biological Protection Department in Tichonín (approximately 150 kilometres east of Prague) is a specialized medical facility of the the Czech armed forces, which also serves as a hospital for the isolation and treatment of persons with particularly dangerous and infectious diseases and includes the armed forces, biological experts and medical practitioners [2]. In addition, the facility serves as a training centre for military and medical specialists

from the Czech Republic and the North Atlantic Treaty Organization [2]. There are also guidelines on cooperation between public health and security authorities to respond specifically to a potential biological attack. The Ministry of the Interior's "Strategy of the Czech Republic for the Fight Against Terrorism" (2013) sets out how the various components of the Integrated Rescue System (rescue forces, public health authorities and security authorities) should cooperate in the event of an array of attacks, including a biological attack [3].

[1] aztechonin.army.cz. "Exercise AZ OBO VZ AVZdr" ("Cvičení AZ OBO VZ AVZdr"). [http://www.aztechonin.army.cz/cviceni-az-obo-vzu-avzdr] Accessed 12 October 2020.
[2] Ministry of Defence of the Czech Republic. "Biological Protection Department - Tichonín" ("ODBOR BIOLOGICKÉ OCHRANY - TICHONÍN"). [http://www.acr.army.cz/struktur/generalni/podpora/avz/odbor-biologicke-ochrany---techonin-86980/] Accessed 9 December 2020.
[3] Ministry of the Interior of the Czech Republic. "Strategy of the Czech Republic for the Fight Against Terrorism" ("STRATEGIE ČESKÉ REPUBLIKY PRO BOJ PROTI TERORISMU"). 2013. [https://www.mvcr.cz/cthh/soubor/terorismus-web-dokumenty-strategie-ceske-republiky-pro-boj-proti-terorismu-pdf.aspx]. Accessed 28 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

There is no Czech strategy, regulation, legislation or document that outlines how messages will reach populations and sectors with different communications needs. There is no evidence that the Czech Republic has created a general public health emergency plan on the pages of the Fire Rescue Service or the Ministry of Health [4, 5]. The Czech Republic's Pandemic Plan, which sets out the procedure for response to an influenza pandemic, does include notes on the media's responsibility to inform as many people as possible and with large coverage, but it provides no guidelines on details such as other languages and specific mechanisms of communication [1]. The Czech Republic has also published the Concept of Preparation for a Public Health Crisis (2007), but this focuses on preparation measures and does not set out response procedures [2]. Act No. 240/2000 on Crisis Management and on Amendment to Certain Acts, which establishes the powers and responsibilities of state agencies and local government units, as well as the rights and obligations of legal entities and individuals in the preparation for and response to a crisis, stipulates that the mayor of a municipality is responsible for communication within the crisis management procedure determined by the Ministry of the Interior. [3] However, no further details about communication are provided [3]. The Ministry of Health website, the web page of the Integrated Rescue System (IZS) and IZS legislation also do not provide details on how messages will reach populations and sectors with different communication needs [4, 5].

[1] Government of the Czech Republic. "Pandemic Plan" ("Pandemický plán"). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (P?SOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[3] Ministry of Health of the Czech Republic. Emergency stock emergency services (Pohotovostní zásoby v systému

nouzového hospodářství). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 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 no evidence that the Czech Republic has in place a risk communication plan that is specifically intended for use during a public health emergency. In the Czech Republic's Pandemic Plan (adopted 2011), which sets out the procedures and system of response of the Czech Republic to an influenza pandemic caused by a new type of influenza virus, it is clearly stated in each phase of the plan that there will be an initiation of communication activities to communicate with the media and the professional and general public about the potential and real risk of pandemic influenza, that there will be a test with communication skills exercises at least once a year or more frequently if necessary, and there will be an activation of communication mechanisms to secure the widest possible spread of information, all in conjunction with the Ministry of Health [1]. The Czech government has also published a Concept of Preparation for a Public Health Crisis (2007), but this focuses on preparation measures and does not set out response procedures [2]. There is no evidence that the Czech Republic has created a general public health emergency plan on the pages of the Fire Rescue Service or the Ministry of Health [3, 4].

[1] Government of the Czech Republic. "Pandemic Plan" ("Pandemický plán"). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Ministry of Health of the Czech Republic. 2007. "Concept of Preparation for a Public Health Crisis in the Czech Republic" ("KONCEPCE KRIZOVÉ P?IPRAVENOSTI ZDRAVOTNICTVÍ ČESKÉ REPUBLIKY"). [http://www.skpz.cz/wp-content/uploads/2012/07/Koncepce-krizov%C3%A9-p%C5%99ipravenosti-zdravotnictv%C3%AD.pdf] Accessed 1 December 2020.
[3] The Fire Rescue Service of the Czech Republic. [http://www.hzscr.cz/] Accessed 5 November 2020.
[4] Ministry of Health for the Czech Republic. [http://www.mzcr.cz/] Accessed 9 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 of a risk communication plan designating a specific position within the government to serve as the primary spokeperson during a public health emergency. On the contrary, during the ongoing COVID-19 pandemic, communication with the public has been handled by several different senior governmental officials, including the prime minister (Andrej BabiÅ¡), the minister of health (Adam VojtÄ›ch, Roman Prymula and Jan BlatnÃ½) and the minister of the interior (Jan HamÃ¡Ä&#65533;ek), a situation that has been criticized in the national media. [2, 3, 4] No such evidence has been found on the websites of the Ministry of Health or the

National Institute of Public Health [5, 6].

[1] Ministry of Health of the Czech Republic. "Crisis management" ("KrizovÃ© Å™ÃzenÃ"). [http://www.mzcr.cz/obsah/krizove-rizeni_1016_3.html] Accessed 5 November 2020.
[2] The Czech TV. 17 November 2020. "Tragedy, chaos and confusion. The government has not learned from the spring crisis how to speak about the coronavirus." ("TragÃ©die, chaos, zmatek. VlÃ¡da se z jarnÃ krize nepouÄ&#65533;ila, jak mluvit o koronaviru"). [https://ct24.ceskatelevize.cz/domaci/3208516-tragedie-chaos-zmatek-vlada-se-z-jarni-krize-neponaucila-o-koronaviru-mluvit-stale]. Accessed 5 November 2020.
[3] Reflex. 14 October 2020. "Unbelievable, that the PM said this. Autentic statements from the speech of Andrej BabiÅ¡ - like demotivational posters." ("NeuvÄ›Å™itelnÃ©, Å¾e tohle premiÃ©r Å™ekl. AutentickÃ© hlÃ¡Å¡ky z projevu Andreje BabiÅ¡e jako demotivaÄ&#65533;nÃ plakÃ¡ty"). [https://www.reflex.cz/clanek/zajimavosti/103442/neuverite-ze-tohle-premier-rekl-autenticke-hlasky-z-projevu-andreje-babise-jako-de-motivacni-plakaty.html]. Accessed 5 November 2020.
[4] Novinky.cz. 23 July. "BabiÅ¡ and VojtÄ›ch have given three different terms of the next press conference in one day." ("BabiÅ¡ s VojtÄ›chem uvedli tÅ™i rÅ¯znÃ© termÃny tiskovÃ© konference bÄ›hem jednoho dne"). [https://www.novinky.cz/domaci/clanek/babis-uz-rysuje-pondelni-opatreni-pujde-jen-o-rousky-40331393]. Accessed 10 November 2020.
[5] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[6] National Institute of Public Health. [http://www.szu.cz/] 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: 1

In the past year that Czech public health system has actively shared messages via online media platforms to inform the public about ongoing public health concerns and dispel rumors, misinformation or disinformation during active emergencies, but there is insufficient evidence that it regularly uses online media platforms outside of emergencies. Since the outbreak of COVID-19 in the Czech Republic in March 2020, the government has used official websites (primarily the Ministry of Health and the Governmental portal) and social media such as Twitter to provide regular updates on the development of the outbreak, the nature of the disease and related risks, data on cases and location of cases, information about prevention and safety, and details on restrictions introduced by the government. [1, 2, 3] The Ministry of Health has established a special team of experts to debunk COVID-19 misinformation. [4] In March 2020, the National Health Information Center, under the Ministry of Health, set up a dedicated website, covid.gov.cz, on which all coronavirus-related information is consolidated [5]. However, prior to the COVID-19 pandemic, the Ministry of Health did not regularly utilize online media platforms to inform the public about public health concerns. While the Public Health Authority did publish material on public health concerns

prior to the COVID-19 pandemic, this was not done regularly. [1, 2]

[1] Ministry of Health. "Updates on Coronavirus". ("AktuÃ¡lnÃ informace o COVID"). [https://koronavirus.mzcr.cz/]. Accessed 20 November 2020.
[2] Twitter. "Ministry of Health". [https://twitter.com/zdravkoonline?lang=de]. Accessed 20 November 2020.
[3] Ministry of Health. "Covid 19: Situation overview." ("Covid 19: AktuÃ¡lnÃ pÅ™ehled situace"). [https://onemocneni-aktualne.mzcr.cz/covid-19]. Accessed 20 November 202
[4] Rozhlas Plus. 22 October 2020. "Fake news about coronavirus are getting stronger." ("Fake news o koronaviru sÃlÃ"). [https://www.irozhlas.cz/zpravy-domov/koronavirus-cesko-dezinformace-fake-news-vrabel-ministerstvo-zdravotnictvi_2010220637_kno]. Accessed 20 November 2020.
[5] Government office of the Czech Republic. "Covid Portal." ("Covid PortÃ¡l"). [https://covid.gov.cz/]. Accessed 20 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 evidence that senior Czech leaders have shared misinformation on infectious diseases in the past two years. In February 2020, the Czech president, Miloš Zeman, made public statements downplaying the seriousness of COVID-19, saying that he was not afraid of the COVID-19 pandemic, and that people should be more wary of the common cold. [1]. However, there is no evidence of more substantially false or misleading statements related to infectious diseases by senior Czech leaders in the past two years. No such information has been found in local or international media. [2, 3, 4, 5, 6]

[1] Healt.Euro. 6 February 2020. "Zeman does not fear coronavirus." ("Zeman se koronaviru neobává").
[https://zdravi.euro.cz/zeman-se-koronaviru-neobava-ocenil-ale-pomoc-cine/] Accessed 10 November 2020.
[2] Reuters. [https://www.reuters.com/]. Accessed 11 December 2020.
[3] BBC News. [https://www.bbc.com/news]. Accessed 11 December 2020.
[4] Hospodářské Noviny. [www.ihned.cz]. Accessed 11 December 2020.
[5] Denik N. [www.enko.cz]. Accessed 11 December 2020.
[6] iDnes.cz [www.idnes.cz]. Accessed 11 December 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 80.87

2019

International Telecommunication Union (ITU)

3.6.2 Mobile subscribers

3.6.2a

Mobile-cellular telephone subscriptions per 100 inhabitants

Input number

Current Year Score: 123.54

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

In the past year, the Czech Republic has issued a restriction, without international or bilateral support, on the export of medical goods due to the outbreak of an infectious disease. In March 2020, in connection with measures taken in response to COVID-19, Czech Ministry of Health banned the export of medicines, medical devices and diagnostic medical devices abroad (except for producers fulfilling pre-existing orders from another state) [1]. The decision was taken to prevent a possible risk of shortage in medicine available to patients in the Czech Republic [2]. Restrictions on the export of some medicines remain in place indefinitely, though the scope of the restrictions has changed several times since the introduction of the ban. [3]

In addition, on 14 March 2020 the European Union (EU), of which the Czech Republic is a member, adopted Regulation 2020/402, under which special authorization was required to export personal protective equipment (masks, gloves, goggles, face shields and overalls) out of the EU. [4] On 23 April 2020 this was superseded by a new regulation, numbered 2020/568, under which authorization was required to export personal protective equipment out of the EU, except to Albania, Andorra, Bosnia, the Faroe Islands, Gibraltar, Iceland, Kosovo, Liechtenstein, Montenegro, Norway, North Macedonia, San Marino, Serbia and Switzerland. [5] On 26 May 2020 this rule expired. [5]

[1] Ministry of Health. 3 March 2020. "Ministry banned export of all FFP3 facial masks outside the Czech Republic". ("Ministerstvo zakázalo vývoz všech respirátorů třídy FFP3 mimo ČR"). [https://www.mzcr.cz/mimoradne-oop-zakaz-vyvozu-vsech-respiratoru-tridy-ffp3-mimo-cr/]. Accessed 10 November 2020.
[2] idnes.cz. 3 March 2020. "Ministry banned export of FFP3 facial masks." ("Ministerstvo zakázalo vývoz všech FFP3 respirátorů"). [https://www.idnes.cz/zpravy/domaci/respiratory-ministerstvo-zakaz-vyvoz-cr.A200303_220314_domaci_lesa]. Accessed 10 November 2020.
[3] The Government Office of the Czech Republic. "Overview of the governmental decrees since the beginning of the crisis state." ("Přehled vládních usnesení od vyhlášení nouzového stavu"). [https://www.vlada.cz/cz/epidemie-koronaviru/dulezite-informace/prehled-vladnich-usneseni-od-vyhlaseni-nouzoveho-stavu-180608/]. Accessed 20 November 2020.
[4] Euopean Commission. 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=CELEX:32020R0402]. Accessed 20 November 2020.
[5] Euopean Commission. Commission Implementing Regulation (EU) 2020/568 of 23 April 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=CELEX%3A32020R0568]. Accessed 20 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 publicly available evidence that, in the past year, the Czech Republic has issued a restriction, without international/bilateral support, on the export or import of non-medical goods due to an infectious disease outbreak. No such evidence was found on the websites of the Ministry of Health, the National Institute of Public Health, the Ministry of Argiculture and Rural Development, the Ministry of Interior, the Ministry of Trade and Investment, or the Ministry of Foreign Affairs. [1,2, 3, 4, 5, 6]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[2] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 31 October 2020.
[4] Ministry of Interior of the Czech Republic. [https://www.mvcr.cz/] Accessed 2 October 2020.
[5] Ministry of Industry and Trade of the Czech Republic. [https://www.mpo.cz/] Accessed 2 October 2020.
[6] Ministry of Foreign Affairs of the Czech Republic. [https://www.mzv.cz]. Accessed 14 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

In the past year, the Czech Republic has implemented a ban, without international or bilateral support, on travelers arriving from abroad due to an infectious disease outbreak. On 13 March 2020 Prime Minister of the Czech Republic, Andrej Babiš announced that, starting from the following day, no-one was allowed to enter the country from abroad, except from Poland, unless they were a citizen or resident of the Czech Republic, or a close relative thereof. [1,2] In addition, on 17 March the 27 member states of the European Union (EU) agreed to ban entry into the EU from all other countries (except for EU citizens, British citizens and people who live in the EU or the United Kingdom). [7] Since then the EU ban has been periodically reviewed, and entry has been allowed from certain countries. [8]

[1] Novinky.cz. 13 March 2020. "Press conference after the governmental meeting on coronavirus. " ("Tisková konference po mimořádné schůzi vlády ke koronaviru"). [https://www.novinky.cz/domaci/clanek/tiskova-konference-po-mimoradne-schuzi-vlady-ke-koronaviru-40316547]. Accessed 22 November 2020.
[2] The Government Office of the Czech Republic. "Overview of the governmental decrees since the beginning of the crisis state." ("Přehled vládních usnesení od vyhlášení nouzového stavu"). [https://www.vlada.cz/cz/epidemie-koronaviru/dulezite-informace/prehled-vladnich-usneseni-od-vyhlaseni-nouzoveho-stavu-180608/]. Accessed 20 November 2020.
[3] Deutsche Welle. 18 March 2020. "EU closes borders to foreigners to halt coronavirus spread: What to know." [https://www.dw.com/en/eu-closes-borders-to-foreigners-to-halt-coronavirus-spread-what-to-know/a-52824499]. Accessed 7 August 2020.
[4] Deutsche Welle. 30 June 2020. "EU agrees to reopen borders to 14 countries, extends travel ban for US tourists." [https://www.dw.com/en/eu-agrees-to-reopen-borders-to-14-countries-extends-travel-ban-for-us-tourists/a-53986435]. Accessed 7 August 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: 412.08

2018

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 839.55

2017

WHO; national sources

4.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Czech Republic has a 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. Whilst strategies focused on public health workforce are in place, they do not address shortages. There are thirteen "Action Plans" for the implementation of the National Strategy for the Protection and Promotion of Health and Disease Prevention, and Action Plan 10 is dedicated to the education of health workers [1]. Action Plan 10 is split into two strategies: one for physicians and the other for non-medical health workers. The strategy for physicians focuses primarily on the length of study at medical faculties, the adaptation process preparing the young doctor and pharmacist for the transition from the study period at the Faculty of Medicine and the Faculty of Pharmacy to the actual practice of a doctor's profession with a healthcare provider, and on a legal regulation that defines the powers and competencies of a doctor after graduating from general medicine, i.e. a doctor without specialization [1]. The strategy for non-medical health workers aims primarily to

improve the care provided by non-medical healthcare professionals, to continue the improvement of the training of non-medical healthcare workers, to improve the healthcare profession, to increase the effectiveness of planning and support, to improve health education, disease prevention and self-care and to ensure the systematic education of lower and middle management of non-medical health care professions in the field of management and management of people [1]. Furthermore, the Ministry of Health states on its website that the Institute for Postgraduate Medical Education focuses on solving the most serious problems in the field of professional education of healthcare workers and managers of health care facilities, as well as addressing the inefficient use of human resources in terms of competencies and education, communications with managers of health care facilities, insufficient financial provision for lifelong learning, the level of accredited workplaces, a small number of educational establishments, a lack of study places and a lack of work force in some medical disciplines. However, these projects and strategies are aimed at improving the preparedness of healthcare workers for changing labour market needs, demographic, political and legislative changes, and thereby achieving greater efficiency in the provision of health services but not explicitly addressing shortages in the public health sector. Such evidence is absent from the websites of the Ministry of Health, Ministry of Labour and Social Affairs, and the Ministry of Education, Youth and Sports [2, 3, 4].

[1] Ministry of Health of the Czech Republic. "Action Plans for Implementing the National Health 2020 Strategy" ("Akčná plány pro implementaci Národní strategie Zdraví 2020"). [http://www.mzcr.cz/verejne/dokumenty/akcni-plany-pro-implementaci-narodni-strategie-zdravi-2020_10814_3016_5.html] Accessed 2 November 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 3 December 2020.
[3] Ministry of Education, Youth and Sports of the Czech Republic. [http://www.msmt.cz/?lang=1] Accessed 3 December 2020.
[4] Ministry of Labour and Social Affairs. [https://www.mpsv.cz/cs/] Accessed 3 December 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 662

2018

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic has the capacity to isolate patients with highly communicable diseases in isolation units. The Clinic of Infectious, Parasitic and Tropical Diseases in Prague's Bulovka Hospital (Nemocnice Na Bulovce) provides outpatient and inpatient care for a variety of infectious diseases, including typhoid fever, parathypha, cholera, dysentery, zoonoses, inflammation of the brain and brain membranes, feverish conditions, infectious endocarditis, sepsis, hepatitis, HIV, infectious mononucleosis, Lyme borreliosis, chlamydiosis, malaria, dengue fever, and leishmaniasis [1]. The ward consists of isolation

units with ventilation, decontamination areas, an intensive care unit of 6 beds, another intensive care unit 5 beds and special halls for operations on infected patients and births involving infected women [1,2]. The clinic is also the home facility for the National Centre for the Isolation and Treatment of Highly Dangerous Diseases. In the case of a highly dangerous disease (VNN), it has a nationwide scope due to its equipment. Two special bioboxes with an eight-bed filter ventilation unit and two intensive care beds with a filter device can provide patients with infection up to BSL 3 (Biosafety Level 3) and the other two bioboxes, biovacs and protective aids are prepared by professionally trained healthcare professionals to rescue those affected. [1]

[1] Nemocnice Na Bulovce. Clinic of infectious, parasitic and tropical diseases (Klinika infekčních, parazitních a tropických nemocí). [https://www.hzscr.cz/clanek/casopis-112-rocnik-xiv-cislo-8-2015.aspx?q=Y2hudW09Mw%3D%3D]. Accessed 28 November 2020.
[2] Nemocnice Na Bulovce. "Safety risks in the NNB - draft measures" ("Bezpečnostní rizika v NNB - návrh opatření"). 2015. [http://bulovka.cz/wp-content/uploads/2016/09/RIZIKA-NNB-revize-2015.pdf]. Accessed 28 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

In 2020, Cuba implemented the Plan for Facing COVID-19 (Plan de Enfrentamiento a la COVID-19) which provides the creation of isolation centers primarily destined to isolate international traveleres during a screening and monitoring period. To this end, the Cuban government identified and prepared hospitals and isolation centeres throughout the whole territory to be activated progressively during the COVID-19 response. Among these centeres were also included tourist centeres destined to isolate traveleres and tracked contacts [1]. There is no clear information on whether these facilities are permanent and could be used for other outbreaks as well, as no further information is available on the Ministry of Health's website [2]. There is no further evidence that Cuba has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years, but there is evidence that Cuba has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years according to the Insitute Pedro Kouri or the Hospital Landin [4, 5]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/Odbornik/] Accessed 9 April 2021.
[2] National Institute of Public Health. 23.12.2014. "Protective measures" ("Ochranná opatření"). [http://www.szu.cz/uploads/documents/CeM/infekce/ebola/2014_zruseni_ochranneho_opatreni.pdf] Accessed 30 March 2021.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 2

The Czech Republic has a national procurement protocol in place that can be utilized by the Ministries of Health and Agriculture for the acquisition of both laboratory equipment and medical equipment needed for routine needs. The National Institute of Public Health (SZU), which is subordinated to the Ministry of Health, regularly opens public tenders for the acquisition of medical equipment. As of 1 January 2013, the contracting authority will publish all documents and information concerning tenders, especially on the contracting authority's profile. This includes the contracting autority's profiles on public procurement electronic marketplaces such as Tendermarket and Tender Arena. For example, in 2018, through this system, the SZU has acquired freezers and sound absorption boxes for rotary vacuum pumps [1]. Furthermore, Act No. 97/1993 on the Jurisdiction of the State Material Reserves Administration stipulates the protocol by which laboratory needs can be acquired in the case of an public health emergency [2]. The Administration of State Material Reserves - Czech Republic (SSHR) is the central procurement agency that serves to provide ministries in the event of national crisis and which is also cited by the Ministry of Health as its primary source of laboratory and healthcare equipment in an emergency [3, 4].

[1] National Institute of Public Health. "Public procurement and demand" ("Veřejné zakázky a poptávky"). [http://www.szu.cz/verejne-zakazky] Accessed 4 December 2020.
[2] Parliament of the Czech Republic. 15.3.1993. Act No. 97/1993 on jurisdiction of the State Material Reserves Administration (o působnosti Správy státních hmotných rezerv). [https://www.zakonyprolidi.cz/cs/1993-97] Accessed 10 November 2020.
[3] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (P?SOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[4] Ministry of Health of the Czech Republic. Emergency stock emergency services (Pohotovostní zásoby v systému nouzového hospodářství). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 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

The Czech Republic has a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. According to the National Pandemic Plan in the Case of a Pandemic (last updated

2011) the Administration of State Material Reserves (SSHR) ensures that reserves of medical supplies and personal protective equipment (PPE) are in place for national use by the Ministry of Health in the event of a public health emergency [1,2]. SSHR SR processes requests by the Ministry of Health for the replenishment of PPE stocks, submitting proposals to the government for the allocation of financial resources necessary for the acquisition and purchase of PPE. This process is supported by the Ministry of Health. [3] The SSHR publishes invoices evidencing its acquisition of items, but detailed information on the specific type and volume of items is not published. However, in May 2020, the Ministry of Industry and Trade declared its intention to purchase additional medical material for the second wave of the COVID-19 pandemic. [4] It was reported in the media that the SSHR had stocked surgical masks, surgical gloves, shoe covers, 10,000 liters of disinfectant solution, and other medical items, though some media reports suggested that this had not really happened. [3, 5] However, there is no publicly available evidence that the Czech Republic has a stockpile of medical countermeasures for national use during a public health emergency. There is no such evidence on the websites of the Ministry of Health, the Public Health Authority, the SSHR, the Ministry of Defense or the Ministry of Interior Affairs. [6, 7, 8] The SSHR is supposed to have stockpiles of medical countermeasures, but in practice it does not, a fact that has been criticized by the Czech media during the COVID-19 pandemic [9].

[1] Government of the Czech Republic. "Pandemic Plan" ("Pandemický plán"). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[2] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (P?SOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[3] Ministry of Health of the Czech Republic. Emergency stock emergency services (Pohotovostní zásoby v systému nouzového hospodářství). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 November 2020.
[4] Ministry of Industry and Trade. "THe SSHR will purchase medical equipment for the second wave of the pandemic." ("SSHR nakoupí do státních rezerv ochranné pomůcky pro případnou druhou vlnu pandemie"). [https://www.mpo.cz/cz/rozcestnik/pro-media/tiskove-zpravy/sshr-nakoupi-do-statnich-rezerv-ochranne-pomucky-pro-pripadnou-druhou-vlnu-pandemie---254676/]. Accessed 10 November 2020.
[5] Ekonomický Deník. "The SSHR will purchase 1,1 mil FFP 3 facial masks and other medical equipment for over 460 mil." ("Správa státních hmotných rezerv koupí 1,1 milionu FFP 3 respirátorů a další ochranné pomůcky za více než 460 milionů"). Accessed 10 November 2020
[6] Ministry of Health of the Czech Republic. Emergency stock emergency services (Pohotovostní zásoby v systému nouzového hospodářství). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 November 2020.
[7] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 4 January 2021.
[8] Ministry of Interior. [https://www.mvcr.cz]. Accessed 5 November 2020.
[9] Seznam.cz "Medical Countermeasures are lacking in the SSHR. Only the Tamiflu is there." ("V krizových zásobách státu chybí léky. Je tam jen Tamiflu"). [https://www.seznamzpravy.cz/clanek/v-krizovych-zasobach-stat-nema-stat-leky-polaci-je-maji-na-kazdou-diagnozu-my-mame-jen-tamiflu-83165]. Accessed 31 October 2020.

4.2.2b

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

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

Current Year Score: 0

There is no publicly available evidence that the Czech Republic has a stockpile of laboratory supplies for national use during a public health emergency. The Administration of State Material Reserves maintains stockpiles for medical emergencies, but

there is no evidence that these stockpiles include laboratory supplies, including on the websites of the Administration of State Material Reserves, the Ministry of Health, the National Institute of Public Health, the Ministry of Defense and the Ministry of Interior Affairs. [1, 2, 3, 4, 5, 6, 7]

[1] National Institute of Public Health. "Public procurement and demand" ("VeÅ™ejnÃ© zakÃ¡zky a poptÃ¡vky"). [http://www.szu.cz/verejne-zakazky] Accessed 4 December 2020.
[2] Parliament of the Czech Republic. 15.3.1993. Act No. 97/1993 on jurisdiction of the State Material Reserves Administration (o pÅ¯sobnosti SprÃ¡vy stÃ¡tnÃch hmotnÃ½ch rezerv). [https://www.zakonyprolidi.cz/cs/1993-97] Accessed 10 November 2020.
[3] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (P?SOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[4] Ministry of Health of the Czech Republic. Emergency stock emergency services (PohotovostnÃ zÃ¡soby v systÃ©mu nouzovÃ©ho hospodÃ¡Å™stvÃ). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 November 2020.
[5] National Institute of Public Health. [http://www.szu.cz/] Accessed 31 October 2020.
[6] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 4 January 2021.
[7] Ministry of Interior Affairs. [https://www.mvcr.cz]. Accessed 5 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 the Czech Republic conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. No such evidence has been found on the websites of the Ministry of Health, the Ministry of Defense, the emergency planning agency, or other associated agencies. [1, 2, 3, 4]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 April 2021.
[2] Ministry of Defense of the Czech Republic. Structure. [http://www.mocr.army.cz/scripts/detail.php?pgid=587] Accessed 4 April 2021.
[3] National Institute of Public Health. [http://www.szu.cz/] Accessed 9 April 2021.
[4] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (PŮSOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 April 2021.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

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

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

Current Year Score: 1

There is no evidence that Czech Republic has 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. However, there is evidence that Czech Republic has a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency.

No evidence has been found on the websites of the Ministry of Health, the Ministry of Defense, or the Public Health Authority, or in the National Pandemic Plan 2011, Act No. 240/2000 on State Governance in Crisis Situations, or Act No. 258/2000 on the Protection of Public Health. [1, 2, 3, 4, 5, 6]. Czech Republic has been part of the European Union (EU) Joint Procurement Agreement for Medical Countermeasures, which ensures that member states have access to medical countermeasures from abroad if necessary when a serious cross-border threat to health is registered. The agreement aims to "secure more equitable access to specific medical countermeasures and improved security of supply", as well as balancing prices for EU member states. It is also designed to ensure acquisition of vaccines, antivirals and medical countermeasures for serious cross-border threats to health [7].

[1] National Institute of Public Health. "Public procurement and demand" ("Veřejné zakázky a poptávky"). [http://www.szu.cz/verejne-zakazky] Accessed 4 December 2020.
[2] Parliament of the Czech Republic. 15.3.1993. Act No. 97/1993 on jurisdiction of the State Material Reserves Administration (o působnosti Správy státních hmotných rezerv). [https://www.zakonyprolidi.cz/cs/1993-97] Accessed 10 November 2020.
[3] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (P?SOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[4] Ministry of Health of the Czech Republic. Emergency stock emergency services (Pohotovostní zásoby v systému nouzového hospodářství). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 November 2020.
[5] National Institute of Public Health. [http://www.szu.cz/] Accessed 31 October 2020.
[6] Government of the Czech Republic. ""Pandemic Plan"" (""Pandemický plán""). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[7] European Commission. "Joint Procurement Of Medical Countermeasures". [https://ec.europa.eu/health/preparedness_response/joint_procurement_en]. Accessed 3 September 2020

4.2.3b

Does the country meet one of the following criteria?
- Is there evidence of a plan/agreement to leverage domestic manufacturing capacity to produce laboratory supplies (e.g. reagents, media) for national use during a public health emergency?
- Is there evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency?

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

Current Year Score: 0

There is no evidence that the Czech Republic has a plan or agreement to leverage domestic manufacturing capacity to produce laboratory supplies for national use during a public health emergency or to procure laboratory supplies for national use during a public health emergency. Similarly, there is no evidence that the government has made any efforts to produce or procure laboratory supplies during the COVID-19 pandemic. No evidence has been found on the websites of the Ministry

of Health, the Ministry of Defense, or the Public Health Authority, or in the National Pandemic Plan 2011, Act No. 240/2000 on State Governance in Crisis Situations, or Act No. 258/2000 on the Protection of Public Health. [1, 2, 3, 4, 5, 6].

[1] National Institute of Public Health. "Public procurement and demand" ("Veřejné zakázky a poptávky"). [http://www.szu.cz/verejne-zakazky] Accessed 4 December 2020.
[2] Parliament of the Czech Republic. 15.3.1993. Act No. 97/1993 on jurisdiction of the State Material Reserves Administration (o působnosti Správy státních hmotných rezerv). [https://www.zakonyprolidi.cz/cs/1993-97] Accessed 10 November 2020.
[3] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (P?SOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[4] Ministry of Health of the Czech Republic. Emergency stock emergency services (Pohotovostní zásoby v systému nouzového hospodářství). [https://www.mzcr.cz/Odbornik/obsah/pohotovostni-zasoby_3485_3.html] Accessed 10 November 2020.
[5] National Institute of Public Health. [http://www.szu.cz/] Accessed 31 October 2020.
[6] Government of the Czech Republic. ""Pandemic Plan"" (""Pandemický plán""). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 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: 0

There is no evidence that the Czech Republic has a plan, program, or guidelines in place for dispensing medical countermeasures for national use during a public health emergency. The 2011 Pandemic Plan states that the government has the capacity to dispense medical provisions during an influenza epidemic, but it does not specify a mechanism for doing so [1]. The Ministry of Health also claims on its website that, in emergencies, it purchases and distributes necessary medicinal products, even those not registered under a special legal regulation, but it does not provide details on a mechanism to do so [2]. Act No. 378/2007 on Pharmaceuticals and Amendments to Certain Related Acts also states that medical countermeasures can be dispensed during public health emergencies, without giving any further details [3]. There is no evidence of any other plans, programs or guidelines related to dispensing medical countermeasures during emergencies on the websites of the Ministry of Defense, the Population Protection Institute or the Ministry of Health [4, 5, 6].

[1] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 10 November 2020.
[2] Ministry of Health of the Czech Republic. "Crisis Management" ("Krizové řízení"). [https://www.mzcr.cz/Odbornik/obsah/krizove-rizeni_1016_3.html] Accessed 10 November 2020.
[3] Parliament of the Czech Republic. 31.12.2007. Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts (Pharmaceuticals Act), (Zákon o léčivech a o změnách některých souvisejících zákonů (zákon o léčivech)). [https://www.zakonyprolidi.cz/cs/2007-378] http://www.hzscr.cz/clanek/pro-pripad-ohrozeni-pro-pripad-ohrozeni.aspx.
[4] Ministry of Defence of the Czech Republic. [http://www.mocr.army.cz/] Accessed 10 November 2020.

[5] Population Protection Institute. "In case of threat" ("Pro případ ohrožení"). [http://www.hzscr.cz/clanek/pro-pripad-ohrozeni-pro-pripad-ohrozeni.aspx] Accessed 10 November 2020.
[6] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.

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

4.3.2a

Is there a public plan in place to receive health personnel from other countries to respond to a public health emergency?
Yes = 1 , No = 0

Current Year Score: 1

There is evidence of a public plan in place to receive health personnel from other countries to respond to a public health emergency in the Czech Republic. The Czech Republic has a bilateral agreement with Austria outlining procedures for requesting and providing assistance during an emergency, including personnel. The agreement outlines procedures for facilitating the arrival of personnel including visa-free stays, employment permit waivers and import / export of necessary relief supplies for the team. Although the document does not specify that medical emergencies are included, it does imply that medical personnel are included as it states that narcotic and psychotropic drugs may only be imported by qualified personnel when and if there is a medical need for response. [1] While the Czech Republic has committed a team and equipment to the European Medical Corps and is, in the event of a public health emergency, entitled to receive health personnel from other European Union countries that have teams within the Corps, there is no publicly available documentation detailing how these foreign health personnel would be received [2]. The composition of the European Medical Corps, which is required to assist the Czech Republic in any public health emergency, includes emergency medical teams, public health teams, mobile biosafety laboratories, and medical assessment and coordination experts [2]. Evidence of a plan with specifics of receiving health personnel is absent from the websites of the Ministry of Health, the Ministry of Defense, and the National Institute of Public Health, and from Act No. 240/2000 on Crisis Management and on the Amendment of Certain Acts, which outlines the state's crisis response [3, 4, 5, 6, 7].

[1] National Council of Austria. 2000. “Agreement between the Republic of Austria and the Czech Republic on mutual assistance with disasters or serious accidents.” (“Vertrag zwischen der Republik Österreich und der Tschechischen Republik über die gegenseitige Hilfeleistung bei Katastrophen oder schweren Unglücksfällen.”) [https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20001085]. Accessed 8 August 2020.
[2] Government of the Czech Republic. "Pandemic Plan" ("Pandemický plán"). 2011. [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 5 November 2020.
[3] World Health Organisation. "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise]. Accessed 25 November 2020.
[4] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 2 October 2020.
[5] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 2 October 2020.
[6] Ministry of Defence of the Czech Republic. Structure. [http://www.mocr.army.cz/scripts/detail.php?pgid=587] Accessed 4 October 2020.
[7] National Institute of Public Health. [http://www.szu.cz/] Accessed 9 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: 4

2020

World Policy Analysis Center

4.4.1b

Access to skilled birth attendants (% of population)

Input number

Current Year Score: 99.8

2013

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: 407.75

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 clear evidence that the Czech government has issued legislation, a policy or public statement committing to provide prioritized healthcare services to healthcare workers who become sick as a result of responding to a public health emergency. Evidence of such a policy or statement for prioritised health care service is lacking from relevant legislation, specifically Act No. 240/2000 on Crisis Management and on the Amendment of Certain Acts, and Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws [1, 2]. Act No. 240/2000 establishes powers and responsibilities of state agencies and local government units, as well as the rights and obligations of legal entities and individuals, in the preparation for and response to a crisis [1]. Act No. 239/2000 defines the integrated rescue system which responds to crises and defines the components of the integrated rescue system and its scope in such situations [2]. Evidence of priority treatment is also absent from the websites of the Ministry of Health, the Ministry of the Interior, the Fire Rescue Service, the State Office for Nuclear Safety, the Ministry of Defense, and from the Czech Republic's Pandemic Plan (2011) for influenza epidemics [3, 4, 5, 6, 7, 8, 9, 10]. Furthermore, there is no evidence on the websites of the Ministry of Health or the Fire Rescue Service that the Czech Republic has created a general public health emergency plan [6, 7].

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovém řízení a o změně některých zákonů (krizové zákon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 11 November 2020.
[2] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 on the Integrated Rescue System and the amendment of some laws (Zákon o integrovaném záchranném systému a o změně některých zákonů).
[https://www.zakonyprolidi.cz/cs/2000-239] Accessed 11 November 2020.
[3] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (krizový zákon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 9 November 2020.
[4] Ministry of the Interior of the Czech Republic. "Ensurance of the resilience and equipment of the basic components of the Integrated Rescue System - the Czech Police and the Fire Rescue Service of the Czech Republic (including SADC) in the territory, with an emphasis on adapting to climate change and new risks in 2014-2020" ("Zajištění odolnosti a vybavení základních složek integrovaného záchranného systému - Policie ČR a Hasičského záchranného sboru ?R (v?etn? JSDH) v území, s důrazem na přizpůsobení se změnám klimatu a nových rizikých v období 2014-2020").
[http://www.mvcr.cz/soubor/zajisteni-odolnosti-a-vybavenosti-zakladnich-slozek-izs-v-uzemi-s-durazem-na-prizpusobeni-se-zmenam-klimatu-a-novym-rizikum-v-obdobi-2014-2020.aspx] Accessed 11 November 2020.
[5] Ministry of the Interior of the Czech Republic. "Crisis Management" ("Krizové řízení").
[http://www.mvcr.cz/clanek/krizove-rizeni-72.aspx] Accessed 11 November 2020.
[6] The Fire Rescue Service of the Czech Republic. "Crisis Planning" ("Krizové plánování").
[http://www.hzscr.cz/clanek/krizove-rizeni-a-cnp-krizove-planovani-krizove-planovani.aspx] Accessed 11 November 2020.
[7] Ministry of Health of the Czech Republic. "Crisis Management" ("Krizová řízení").
[https://www.mzcr.cz/Odbornik/obsah/krizove-rizeni_1016_3.html] Accessed 11 November 2020.
[8] State Office for Nuclear Safety. Department of Crisis Management and Informatics. [https://www.sujb.cz/krizove-rizeni/odbor-krizoveho-rizeni-a-informatiky/] Accessed 11 November 2020.
[9] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán").
[https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 11 November 2020.
[10] Ministry of Defence of the Czech Republic. "Legislation under the authority of the Ministry of Defence of the Czech

Republic" ("Zákony v působnosti Ministerstva obrany ČR"). [http://www.mocr.army.cz/dokumenty-a-legislativa/zakony-v-pusobnosti-mo-172/] Accessed 11 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: 0

There is no evidence that the Czech Republic has in place a system for public health officials and healthcare workers to communicate during a public health emergency. There is no mention of such a system in Act No. 240/2000 on Crisis Management and on the Amendment of Certain Acts (which governs crisis response) or Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws (which establishes and regulates the main crisis response system) [1, 2]. There is no evidence of a relevant communication system on the websites of the Ministry of Health, the Ministry of the Interior, the Fire Rescue Service, the State Office for Nuclear Safety, or the Ministry of Defense, or in the 2011 Pandemic Plan [3, 4, 5, 6, 7, 8, 9, 10].

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovÃ©m Å™Ã-zenÃ- a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯ (krizovÃ½ zÃ¡kon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 11 November 2020.
[2] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 on the Integrated Rescue System and the amendment of some laws (ZÃ¡kon o integrovanÃ©m zÃ¡chrannÃ©m systÃ©mu a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 11 November 2020.
[3] Government of the Czech Republic. 1.1.2001. Government Order to Implement Section 27
[8] and Section 28
[5] of Act No. 240/2000 Coll., On Crisis Management and on Amendment to Certain Acts (Crisis Act), ("KrizovÃ½ zÃ¡kon"). [https://www.zakonyprolidi.cz/cs/2000-462] Accessed 11 November 2020.
[4] Ministry of the Interior of the Czech Republic. "Ensurance of the resilience and equipment of the basic components of the Integrated Rescue System - the Czech Police and the Fire Rescue Service of the Czech Republic (including SADC) in the territory, with an emphasis on adapting to climate change and new risks in 2014-2020" ("ZajiÅ¡tÄ›nÃ- odolnosti a vybavenosti zÃ¡kladnÃ-ch sloÅ¾ek integrovanÃ©ho zÃ¡chrannÃ©ho systÃ©mu â€“ Policie ÄŒR a HasiÄ�skÃ©ho zÃ¡chrannÃ©ho sboru ÄŒR (vÄ�etnÄ› JSDH) v ÃºzemÃ-, s dÅ¯razem na pÅ™izpÅ¯sobenÃ- se zmÄ›nÃ¡m klimatu a novÃ½m rizikÅ¯m v obdobÃ- 2014 â€“ 2020"). [http://www.mvcr.cz/soubor/zajisteni-odolnosti-a-vybavenosti-zakladnich-slozek-izs-v-uzemi-s-durazem-na-prizpusobeni-se-zmenam-klimatu-a-novym-rizikum-v-obdobi-2014-2020.aspx] Accessed 11 November 2020.
[5] Ministry of the Interior of the Czech Republic. "Crisis Management" ("KrizovÃ© Å™Ã-zenÃ-"). [http://www.mvcr.cz/clanek/krizove-rizeni-72.aspx] Accessed 11 November 2020.
[6] The Fire Rescue Service of the Czech Republic. "Crisis Planning" ("KrizovÃ½ plÃ¡novÃ¡nÃ-"). [http://www.hzscr.cz/clanek/krizove-rizeni-a-cnp-krizove-planovani-krizove-planovani.aspx] Accessed 11 November 2020.
[7] Ministry of Health of the Czech Republic. "Crisis Management" ("KrizovÃ© Å™Ã-zenÃ-"). [https://www.mzcr.cz/Odbornik/obsah/krizove-rizeni_1016_3.html] Accessed 11 November 2020.
[8] State Office for Nuclear Safety. Department of Crisis Management and Informatics. [https://www.sujb.cz/krizove-

rizeni/odbor-krizoveho-rizeni-a-informatiky/] Accessed 11 November 2020.
[9] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 11 November 2020.
[10] Ministry of Defence of the Czech Republic. "Legislation under the authority of the Ministry of Defence of the Czech Republic" ("ZÃ¡kony v pÅ¯sobnosti Ministerstva obrany ÄŒR"). [http://www.mocr.army.cz/dokumenty-a-legislativa/zakony-v-pusobnosti-mo-172/] Accessed 11 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: 0

There is no clear evidence that the Czech Republic has in place a system for public health officials and healthcare workers in both the public and private sectors to communicate during a public health emergency. There is no evidence of such a system in Act No. 240/2000 on Crisis Management and on the Amendment of Certain Acts, or in Act No. 239/2000 on the Integrated Rescue System and the Amendment of Some Laws (both of which relate to crisis response) [1, 2]. There is no evidence of a relevant system on the websites of the Ministry of Health, the Ministry of the Interior, the Fire Rescue Service, the State Office for Nuclear Safety, and the Ministry of Defence, and from the Czech Republic's Pandemic Plan (2011) [3, 4, 5, 6, 7, 8, 9, 10].

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovÃ©m Å™ÃzenÃ a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯ (krizovÃ½ zÃ¡kon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 11 October 2020.
[2] Parliament of the Czech Republic. 1.1.2001. Act No. 239/2000 on the Integrated Rescue System and the amendment of some laws (ZÃ¡kon o integrovanÃ©m zÃ¡chrannÃ©m systÃ©mu a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯). [https://www.zakonyprolidi.cz/cs/2000-239] Accessed 11 October 2020.
[3] Government of the Czech Republic. 1.1.2001. Government Order to Implement Section 27
[8] and Section 28
[5] of Act No. 240/2000 Coll., On Crisis Management and on Amendment to Certain Acts (Crisis Act), (NaÅ™ÃzenÃ vlÃ¡dy k provedenÃ Ä&#65533;. 27 odst. 8 a Ä&#65533;. 28 odst. 5 zÃ¡kona ?. 240/2000 Sb., o krizovÃ©m Å™ÃzenÃ a o zmÄ›nÄ› nÄ›kterÃ½ch zÃ¡konÅ¯ (krizovÃ½ zÃ¡kon). [https://www.zakonyprolidi.cz/cs/2000-462] Accessed 11 October 2020.
[4] Ministry of the Interior of the Czech Republic. "Ensurance of the resilience and equipment of the basic components of the Integrated Rescue System - the Czech Police and the Fire Rescue Service of the Czech Republic (including SADC) in the territory, with an emphasis on adapting to climate change and new risks in 2014-2020" ("ZajiÅ¡tÄ›nÃ odolnosti a vybavenosti zÃ¡kladnÃch sloÅ¾ek integrovanÃ©ho zÃ¡chrannÃ©ho systÃ©mu â€" Policie ÄŒR a HasiÄ&#65533;skÃ©ho zÃ¡chrannÃ©ho sboru ÄŒR (vÄ&#65533;etnÄ› JSDH) v ÃºzemÃ, s dÅ¯razem na pÅ™izpÅ¯sobenÃ se zmÄ›nÃ¡m klimatu a novÃ½m rizikÅ¯m v obdobÃ 2014 â€" 2020"). [http://www.mvcr.cz/soubor/zajisteni-odolnosti-a-vybavenosti-zakladnich-slozek-izs-v-uzemi-s-durazem-na-prizpusobeni-se-zmenam-klimatu-a-novym-rizikum-v-obdobi-2014-2020.aspx] Accessed 11 October 2020.

[5] Ministry of the Interior of the Czech Republic. "Crisis Management" ("KrizovÃ© Å™ÃzenÃ"). [http://www.mvcr.cz/clanek/krizove-rizeni-72.aspx] Accessed 11 October 2020.
[6] The Fire Rescue Service of the Czech Republic. "Crisis Planning" ("KrizovÃ© plÃ¡novÃ¡nÃ"). [http://www.hzscr.cz/clanek/krizove-rizeni-a-cnp-krizove-planovani-krizove-planovani.aspx] Accessed 11 October 2020.
[7] Ministry of Health of the Czech Republic. "Crisis Management" ("KrizovÃ© Å™ÃzenÃ"). [https://www.mzcr.cz/Odbornik/obsah/krizove-rizeni_1016_3.html] Accessed 11 October 2020.
[8] State Office for Nuclear Safety. Department of Crisis Management and Informatics. [https://www.sujb.cz/krizove-rizeni/odbor-krizoveho-rizeni-a-informatiky/] Accessed 11 October 2020.
[9] Government of the Czech Republic. 2011. "Pandemic Plan" ("PandemickÃ½ plÃ¡n"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 11 October 2020.
[10] Ministry of Defence of the Czech Republic. "Legislation under the authority of the Ministry of Defence of the Czech Republic" ("ZÃ¡kony v pÅ¯sobnosti Ministerstva obrany ÄŒR"). [http://www.mocr.army.cz/dokumenty-a-legislativa/zakony-v-pusobnosti-mo-172/] Accessed 11 October 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 1

There is evidence that the Czech national public health system is monitoring and tracking the number of healthcare-associated infections (HCAIs) that take place in healthcare facilities. The National Reference Center for Healthcare-Related Infections (NRCHRI) organizes and methodologically supports an HCAI surveillance system at local and national level [1]. The website devoted to the NRCHRI publishes reports, articles and general information relating to HCAIs and hygiene, but the methods of data collection and publication are not specified [2]. In addition, the Czech Republic's "National Antibiotic Program Action Plan for 2019-2022" includes a section focusing on tackling HCAIs [3]. Furthermore, the Ministry of Health has published a document, accompanying a round-table conference in 2013, titled "National Surveillance of Healthcare Associated Infections in the Czech Republic" and which sets out in its agenda a number of aims, including the timely diagnosis of epidemic infections and creating reference data to improve health treatment [4].

[1] National Institute of Public Health. National Reference Centre for Healthcare Related Infections (NÃ¡rodnÃ- referenÄ�nÃ- centrum pro infekce spojenÃ© se zdravotnÃ- pÃ©Ä�Ã-). [http://www.szu.cz/narodni-referencni-centrum-pro-infekce-spojene-se-zdravotni] Accessed 15 October 2020.
[2] National Reference Centre for Healthcare Related Infections. [http://www.nrc-hai.cz/?q=node/121] Accessed 4 January 2021.
[3] National Insistute of Public Health. "National Antibiotic Programme Action Plan for 2019-2022" ("AkÄ�nÃ- plÃ¡n NÃ¡rodnÃ-ho antibiotickÃ©ho programu pro obdobÃ- 2019-2022"). [http://www.szu.cz/uploads/AP_NAP_2019_2022.pdf] Accessed 20 November 2020.

[4] Ministry of Health of the Czech Republic. 2013. "Concept of National Surveillance of Healthcare Related Infections in the Czech Republic" ("Koncepce nÃ¡rodnÃ- surveillance infekcÃ- spojenÃ½ch se zdravotnÃ- pÃ©Ä€Ã- v ÄŒeskÃ© republice"). [http://www.mzcr.cz/Soubor.ashx?souborID=17666&typ=application/pdf&nazev=n%C3%A1rodn%C3%AD%20surveillance%20infekc%C3%AD%20v%20%C4%8CR.pdf] Accessed 4 January 2021.

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 the Czech Republic. The requirement comes under Act No. 378/2007 on Pharmaceuticals and Amendments to Certain Related Acts, which outlines processes for the production, authorization, distribution and use of medicine in the Czech Republic [1]. Responsibliity for ethical review, granting consent and supervision of clinical trials lies with ethics committees at various hospitals [2]. A clinical trial application must be evaluated and approved by the State Institute for Drug Control (SÚKL) and at least one ethics committee [2]. There are two kinds of ethics committees: those for "multi-center clinical trials" and those based in healthcare facilities. An ethics committee consists of healthcare professionals and other members, with at least 5 members, of whom the overwhelming majority is composed of healthcare professionals. The sponsor of the clinical trial is obliged to notify the competent ethics committee in writing of the intention to perform the clinical examination. Then, the ethics committee shall give written consent or disagreement with the conduct of clinical trials within 60 days of the date of receipt of the notification [3].

1] Parliament of the Czech Republic. 31.12.2007. Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts (Pharmaceuticals Act), (Zákon o léčivech a o změnách některých souvisejících zákonů (zákon o léčivech)). [https://www.zakonyprolidi.cz/cs/2007-378] Accessed 1 December 2020.
[2] State Institute for Drug Control. Ethics Committees (Etická komise). [http://www.sukl.cz/sukl/dalsi-informace/eticke-komise] Accessed 13 October 2020.
[3] State Institute for Drug Control. Information on ethics committees (Informace o etických komisích). [http://www.sukl.cz/zdravotnicke-prostredky/informace-o-etickych-komisich] Accessed 13 October 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 clear evidence that there is an expedited process in the Czech Republic for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. A clinical trial application must be evaluated and approved by the State Institute for Drug Control (SÚKL) and at least one ethics committee [1]. The sponsor of the clinical trial

is obliged to notify the competent ethics committee in writing of the intention to perform the clinical examination. Then, the Ethics Committee shall give written consent or disagreement with the conduct of clinical trials within 60 days of the date of receipt of the notification [2]. However, there is no evidence of an expedited process on the websites of the State Institute for Drug Control, or the Institute for State Control of Veterinary Biologicals and Medicines, or in Act No. 240/2000 on Crisis Management and on Amendment to Certain Acts (which governs crisis response) or Act No. 378/2007 on Pharmaceuticals and Amendments to Certain Related Acts (which governs clinical trials) [1, 4, 5, 6, 7].

[1] State Institute for Drug Control. Ethics Committees (Etická komise). [http://www.sukl.cz/sukl/dalsi-informace/eticke-komise] Accessed 13 October 2020.
[2] State Institute for Drug Control. Information on ethics committees (Informace o etických komisích). [http://www.sukl.cz/zdravotnicke-prostredky/informace-o-etickych-komisich] Accessed 13 October 2020.
[3] Institute for State Control of Veterinary Biologicals and Medicines. Crisis situation (Krizová situace) [http://www.uskvbl.cz/cs/krizove-situace] Accessed 13 October 2020.
[4] State Institute for Drug Control. Clinical evaluation of drugs (Klinické hodnocení léků). [http://www.sukl.cz/klinicke-hodnoceni-leku] Accessed 13 October 2020.
[5] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000 on crisis management and on the amendment of certain Acts (o krizovém řízení a o změně některých zákonů (krizový zákon). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 13 October 2020.
[6] Parliament of the Czech Republic. 31.12.2007. Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts (Pharmaceuticals Act), (Zákon o léčivech a o změnách některých souvisejících zákonů (zákon o léčivech)). [https://www.zakonyprolidi.cz/cs/2007-378#cast3] Accessed 13 October 2020.
[7] Government of the Czech Republic. 2011. "Pandemic Plan" ("Pandemický plán"). [https://www.vlada.cz/assets/ppov/brs/dokumenty/Pandemicky_plan_CR.pdf] Accessed 13 October 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 Czech government agency responsible for approving new medical countermeasures. According to Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts, the State Institute for Drug Control (SÚKL) is responsible for approving new medicinal products [1]. The act defines medicinal products as any "drug or a mixture of drugs and excipients that are processed into a pharmaceutical form and are intended to protect against diseases, to diagnose diseases, treat diseases or to affect physiological functions", thereby covering vaccines. [1] Under the authority of the Ministry of Health, SÚKL makes decisions on issues, alters, renews, transfers, suspends and revokes authorization to sell medicinal products, [1]. SÚKL also issues authorization for the manufacture of medicinal products, authorization for the production of transfusion products and raw materials for further production, authorization for the activity of the control laboratory and the distribution of medicinal products, as well as deciding on the change, suspension and revocation of the issued permits [1].

[1] Parliament of the Czech Republic. 31.12.2007. Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts (Pharmaceuticals Act), (Zákon o léčivech a o změnách některých souvisejících zákonů (zákon o léčivech)). [https://www.zakonyprolidi.cz/cs/2007-378#cast3] Accessed 3 October 2020.

4.7.2b

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

Yes = 1 , No = 0

Current Year Score: 1

There is an expedited process for approving medical countermeasures for human use during public health emergencies. Under Section 11 of Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts, the Ministry of Health can issue a temporary measure under article 8 (6) authorizing the distribution, dispensing and use of a non-registered medicinal product or the use of a registered medicinal product in a manner not in accordance with the market entry authorization [1]. The State Institute for Drug Control (SÚKL) is responsible for enacting such a decision and can be consulted in such cases [1]. Article 8 of the same act states that this expited process may be used: "in a case of suspicion or confirmation of the spread of disease, toxins, chemical substances, or radiation, which could seriously harm public health" [1].

[1] Parliament of the Czech Republic. 31.12.2007. Act No. 378/2007 Coll. on Pharmaceuticals and Amendments to Certain Related Acts (Pharmaceuticals Act), (Zákon o léčivech a o změnách některých souvisejících zákonů (zákon o léčivech)). [https://www.zakonyprolidi.cz/cs/2007-378#cast3] Accessed 3 October 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: 0

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Czech Republic has a national risk reduction strategy or a standalone national disaster risk reduction strategy for pandemics. Evidence of a national risk reduction strategy is absent from the websites of the Ministry of the Environment, the Ministry of the Interior, the Fire Rescue Service, the Association for the Preparedness for Health Crisis, the Czech Hydrometeorological Institute, and the United Nations, as well as from Decree No. 206/2012 on Conditions for the Prevention and Spread of Infectious Diseases and Hygiene Requirements for the Operation of Healthcare Facilities and Social Care Institutions) [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]. The country does have in place a National Committee for Natural Disaster Reduction (CNC-NDR), but there is no evidence to suggest that this committte or any other state body has published a risk reduction strategy [1, 2].

[1] PreventionWeb. Czech National Committee for Natural Disaster Reduction (CNC-NDR). [https://www.preventionweb.net/organizations/373] Accessed 15 October 2020.
[2] Ministry of the Environment of the Czech Republic. "Natural catastrophes and risks" ("Přírodní katastrofy a rizika"). 2005. [https://www.mzp.cz/web/edice.nsf/3974FDA531EA66B3C1257030001E709F/$file/planeta_katastrofy_2korektura.pdf] Accessed 15 October 2020.
[3] United Nations Office for Disaster Risk Reduction. Czech Republic. [https://www.unisdr.org/partners/countries/cze] Accessed 15 October 2020.
[4] Permanent Mission of the Czech Republic to the United Nations Office and Other International Organisations at Geneva. Disaster Risk Reduction. [https://www.mzv.cz/mission.geneva/en/humanitarian_aid/disaster_risk_reduction/index.html] Accessed 15 October 2020.
[5] Czech Hydrometeorological Institute. Homepage. [http://portal.chmi.cz/] Accessed 15 October 2020.
[6] Ministry of the Interior of the Czech Republic. "Internal safety and public order" ("Vnitřní bezpečnost a veřejný pořádek"). 2005. [http://www.mvcr.cz/soubor/bezpecnost-pdf.aspx] Accessed 15 October 2020.
[7] Association for the Preparedness for Health Crisis. Home. [http://www.skpz.cz/] Accessed 15 October 2020.
[8] The Fire Rescue Service of the Czech Republic. Integrated rescue system (Integrovaný záchranný systém). [http://www.hzscr.cz/clanek/integrovany-zachranny-system.aspx] Accessed 15 October 2020.
[9] Ministry of the Interior of the Czech Republic. Crisis management (Krizové řízení). [http://www.mvcr.cz/clanek/krizove-rizeni-72.aspx] Accessed 15 October 2020.
[10] Ministry of Health of the Czech Republic. 1.10.2012. Decree No. 306/2012 Coll. on conditions for the prevention and spread of infectious diseases and hygiene requirements for the operation of health care facilities and social care institutions (Vyhláška o podmínkách předcházení vzniku a šíření infekčních onemocnění a o hygienických požadavcích na provoz zdravotnických zařízení a ústavů sociální péče). [https://www.zakonyprolidi.cz/cs/2012-306] Accessed 15 October 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

The Czech Republic has cross-border agreements on public health emergencies with neighboring countries and as part of a regional group, and there is no evidence of gaps in implementation. The Czech Republic participates in the European Medical Corps (EMC), which provides emergency medical response to public health emergencies inside and outside of the European Union (EU) [1]. As such, the Czech Republic has agreed to both send support to neighbouring countries, and also to receive support from participating neighbouring countries [1]. Since April 2018, the Czech Republic has dedicated a team to the EMC [1]. Launched in February 2016, the EMC pools together health emergency assets that are ready for deployment, whilst aiming to increase the availability of doctors and medical equipment in response to emergencies, and to allow for better response planning and preparations [2]. According to the European Commission's EMC web page, the EMC can be mobilised at any time and, when a disaster strikes, emergency medical teams provide direct medical care to people affected by a disaster. Public health teams can be deployed to assess the situation and needs, analyse public health risks, advise on response measures or carry out specific tasks (such as vaccination campaigns and training). Specific types of assistance include mobile biosafety laboratories, medical evacuation capacities and logistical support [2]. In addition, as a member state of the EU, the Czech Republic is a stakeholder of the European Centre for Disease Prevention and Control (ECDC) [3, 4]. The ECDC, among other responsibilities, provides support to EU member states during public health emergencies [1, 2]. Furthermore, within the EU, the Health Security Committee (HSC) provides a platform for the health ministries of member states (including the Czech Republic) to coordinate national responses to cross-border public health emergencies [5, 6]. In addition, the Czech Republic has bilateral agreements on mutual assistance for "disasters and serious accidents" with its four neighbours (Austria, Germany, Slovakia and Poland). [7, 8, 9, 10] These agreements do not give specific definitions of what constitutes a disaster and do not explicitly mention public health emergencies, but do mention "medical aid" among the forms of assistance that can be provided.

[1] European Commission. European Civil Protection and Humanitarian Aid Operations. "European Medical Corps: Echo factsheet". [".europa.eu/echo/files/aid/countries/factsheets/thematic/European_Medical_Corps_en.pdf] Accessed 12 October 2020.
[2] European Commission. European Civil Protection and Humanitarian Aid Operations. "European Medical Corps". [http://ec.europa.eu/echo/what-we-do/civil-protection/european-medical-corps_en] Accessed 2 November 2020.
[3] European Centre for Disease Prevention and Control. "Surveillance and Response Support". [https://ecdc.europa.eu/en/about-us/who-we-are/units/surveillance-and-response-support]. Accessed 20 November 2020.
[4] European Centre for Disease Prevention and Control. "Preparedness". [https://ecdc.europa.eu/en/about-us/what-we-do/preparedness]. Accessed 20 November 2020.
[5] European Commission. "Health Security Committee members". [https://ec.europa.eu/health/preparedness_response/risk_management/hsc/members_en]. Accessed 20 November 2020.
[6] European Union (EU). 2013. "Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health and repealing Decision No 2119/98/EC". [https://ec.europa.eu/health/sites/health/files/preparedness_response/docs/decision_serious_crossborder_threats_221020

13_en.pdf]. Accessed 20 November 2020.
[7] National Council of Austria. 2000. “Agreement between the Republic of Austria and the Czech Republic on mutual assistance with disasters or serious accidents.” (“Vertrag zwischen der Republik Österreich und der Tschechischen Republik über die gegenseitige Hilfeleistung bei Katastrophen oder schweren Unglücksfällen.”) [https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=20001085]. Accessed 9 November 2020.
[8] Federal Republic of Germany and Czech Republic. "TREATY BETWEEN THE FEDERAL REPUBLIC OF GERMANY AND THE CZECH REPUBLIC CONCERNING MUTUAL ASSISTANCE IN THE EVENT OF DISASTERS OR SERIOUS ACCIDENTS." [http://disasterlaw.sssup.it/wp-content/uploads/2015/11/Treaty-Germany-Czech-Republic-on-mutual-assistance-the-event-of-disasters-and-serious-accidents-2003.pdf]. Accessed 9 November 2020
[9] Ministry of the Interior of Slovakia. "Contractual system of the Slovak Republic for extraordinary events". ("Zmluvný systém Slovenskej republiky pre mimoriadne udalosti"). [http://www.minv.sk/?zmluvny-system-slovenskej-republiky-pre-mimoriadne-udalosti]. Accessed 4 October 2020.
[10] Zákony pro lidi. ".Agreement on Cooperation between the Czech Republic and Poland on mutual coopeation and hep at extraordinary events." ("Sdělení Ministerstva zahraničních věcí ke Smlouvě mezi Českou republikou a Polskou republikou o spolupráci a vzájemné pomoci při katastrofách, živelních pohromách a jiných mimořádných událostech"). [https://www.zakonyprolidi.cz/ms/2008-33]. Accessed 4 October 2020.

5.2.1b

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

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

Current Year Score: 2

The Czech Republic has cross-border agreements on animal health emergencies as part of a regional group, and there is no evidence of gaps in implementation. The Czech Republic, as a member of the European Union (EU), is included in the coverage of the Veterinary Emergency Team, set up by the European Commission in 2007 [1, 2]. According to the European Commission's website, the Veterinary Emergency Team includes experts in the fields of veterinary sciences, virology, wildlife, laboratory testing, risk management and other relevant areas. [4] The experts are on stand-by, ready to respond in animal health situations [1]. From this list of experts, the Commission will select ad hoc team members in the event that a request for assistance is submitted by an EU country or a non-EU country during an animal health emergency. The Commission informs EU countries through the Standing Committee on Plants, Animals, Food and Feed on the activities of the team [1]. The Veterinary Emergency Team has most recently conducted missions in Poland (addressing avian influenza in Junuary 2020) [3]. In June and July of 2017, the Emergency Team assisted the Czech Republic in response to an outbreak of African swine fever [3].

[1] European Commission. "Veterinary Emergency Team". [https://ec.europa.eu/food/animals/animal-diseases/emergency-team_en] Accessed 12 October 2020.
[2] European Commission. "EU Veterinary Emergency Team 2018". [https://ec.europa.eu/food/sites/food/files/animals/docs/ad_emergency_cvet_experts.pdf] Accessed 3 December 2020.
[3] European Commission. "EU Veterinary Emergency Team missions". [https://ec.europa.eu/food/sites/food/files/animals/docs/ad_emergency_cvet_experts_missions.pdf] Accessed 2 November 2020.
[4] PreventionWeb. Czech National Committee for Natural Disaster Reduction (CNC-NDR). [https://www.preventionweb.net/organizations/373] Accessed 15 October 2020.

[5] Ministry of Health of the Czech Republic. [http://www.mzcr.cz/] Accessed 2 December 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1 , No = 0

Current Year Score: 1

2021

Biological Weapons Convention

5.3.1d

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

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

Current Year Score: 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: 0

2021

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

5.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.4.2b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

OIE PVS assessments

5.5 FINANCING

5.5.1 National financing for epidemic preparedness

5.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that the Czech Republic has allocated national funds to improve its capacity to address epidemic threats in the past three years. There is no such evidence on the websites of the Ministry of Health or Ministry of Agriculture or the govenment [1, 2, 3]. In 2020, the government has invested in the stockpiles maintained by the Administration of State Material Reserves (SSHR), the central procurement agency that serves to provide ministries in the event of national crisis and that is cited by the Ministry of Health as its primary source of laboratory and healthcare equipment in an emergency [4, 5, 6]. However, this investment has merely been to purchase medical supplies to respond to the ongoing COVID-19 pandemic, rather than to improve capacity. [7] No further evidence has been found on the website of the Ministry of Finance, including in the overviews of the national budgets for 2018, 2019 and 2020. [8, 9, 10]

[1] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 28 November 2020.
[2] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 28 November 2020.

[3] The Government Office of the Czech Republic. [https://www.vlada.cz]. Accessed 20 November 2020.
[4] Administration of State Material Reserves - Czech Republic (SSHR). Scope of SSHR (PŮSOBNOST SSHR). [http://www.sshr.cz/o-nas/Stranky/pusobnost_sshr.aspx] Accessed 10 November 2020.
[5] Neovlivní.cz. 17. 3. 2020. "10 thousand repisators in the SSHR." ("10 tisíc respirátorů v rezervách"). [https://neovlivni.cz/10-tisic-respiratoru-v-rezervach-na-vic-vlada-neuvolnila-penize/]. Accessed 10 November 2020.
[6] The Government Office of the Czech Republic. "Overview of the governmental decrees since the beginning of the crisis state." ("Přehled vládních usnesení od vyhlášení nouzového stavu"). [https://www.vlada.cz/cz/epidemie-koronaviru/dulezite-informace/prehled-vladnich-usneseni-od-vyhlaseni-nouzoveho-stavu-180608/]. Accessed 20 November 2020.
[7] Administration of State Material Reserves. "Czech Republic (SSHR). SSHR purchased 16 milions of face masks and 7 other types of medical protection equipment." ("SSHR nakoupila 16 milionů roušek a dalších 7 druhů ochranných pomůcek"). [https://www.sshr.cz/aktuality/sshr-nakoupila-16-milionu-rousek-a-dalsich-7-druhu-ochrannych-pomucek/]. Accessed 10 November 2020.
[8] Ministry of Finance - National budget 2020. ("Státní rozpočet v kostce - 2020"). [https://www.mfcr.cz/cs/o-ministerstvu/vzdelavani/rozpocet-v-kostce/statni-rozpocet-v-kostce-2020-38000]. Accessed 4 January 2020.
[9] Ministry of Finance - National budget 2019. ("Státní rozpočet v kostce - 2019"). [https://www.mfcr.cz/cs/o-ministerstvu/vzdelavani/rozpocet-v-kostce/statni-rozpocet-v-kostce-2019-34784]. Accessed 4 January 2020.
[10] Ministry of Finance - National budget 2018. ("Státní rozpočet v kostce - 2018"). [https://www.mfcr.cz/cs/o-ministerstvu/vzdelavani/rozpocet-v-kostce/statni-rozpocet-v-kostce-2018-31944]. Accessed 4 January 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 1

The Czech Republic has a special emergency public financing mechanism and funds that it can access in the face of a public health emergency. Act No. 240/2000 on Crisis Management and on Amendment to Certain Acts, which governs crisis response, explicitly states that regions and municipalities, in their budget for the respective year, shall allocate a special reserve of funds for crisis management and elimination of its consequences [1]. These local and national allocations of funds for crises, and related funding mechanisms, are reiterated in documents published by the Ministry of Finance: for example, in 2015, the maximum national funds available for dealing with a national crisis were CZK 50 million (US$ 2.3 million) per event [2]. The Ministry of Finance describes the process as follows: the municipality must ask the regional authority to inform the Ministry of Finance of the crisis and that extra funds are required (this is done usually through the region's security council); the Ministry of Finance will then, within 3 working days, send up to CZK 10 million (US$ 450,000) to the accounts of the region [2]. It is stated that the funds are specifically reserved for, inter alia, the purchase of necessary masonry desiccants, dehumidifiers, fans, pumps, rescue equipment, medical materials, medicines and, where appropriate, the purchase of vaccines, disinfectants and cleaning products [2].

[1] Parliament of the Czech Republic. 1.1.2001. Act No. 240/2000, on Crisis Management and on Amendment to Certain Acts (Crisis Act), (o krizovém řízení a o změně některých zákonů (krizový zákon)). [https://www.zakonyprolidi.cz/cs/2000-240] Accessed 9 November 2020.
[2] Ministry of Finance of the Czech Republic. "Financing of Measures for Dealing with Emergency Events and Crisis Situations" ("Financování opatření při řešení mimořádných událostí a krizových situací"). [https://www.hzscr.cz/soubor/financovani-opatreni-pri-mu-pdf.aspx] Accessed 9 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: 0

There is no evidence of senior leaders of the Czech Republic making a public commitment either to support other countries or to improve country's domestic capacity in the sense of long term, strategic investments. Such evidence has not been found on the websites of the Ministry of Health, the Ministry of Foreign Affairs or the World Health Organization [1, 2, 3].

[1] Ministry of Foreign Affairs of the Czech Republic. [https://www.mzv.cz]. Accessed 14 November 2020.
[2] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/]. Accessed 28 November 2020.
[3] World Health Organisation. [https://www.who.int]. Accessed 23 September 2020.

5.5.4b

Is there evidence that the country has, in the past three years, either:
- Provided other countries with financing or technical support to improve capacity to address epidemic threats?
- Requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats?

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

Current Year Score: 1

The Czech Republic has, in the past three years, invested finances and technical aid both to support other countries to improve their capacity to address epidemic threats as well as to expand its domestic capacity. According to the Global Health Security Funding Tracking Dashboard, the Czech Republic has disbursed some of the funds it committed to support health security capacity-building in 107 countries including Sierra Leone, Mozambique, Kenya and Nigeria, though the dashboard does not indicate the exact amounts or dates [1]. In 2019, the World Health Organization (WHO) contributed approximately US$ 207,000 to the Czech Republic to support organizational capacity enhanced for timely and accurate provision of internal and external communications in accordance with WHO's programmatic priorities, including during disease outbreaks, public health emergencies and humanitarian crises. [1]. However, national documents setting out details on foreign aid projects" the Development Cooperation Strategy of the Czech Republic 2010-2017 and the Development Cooperation Strategy of the Czech Republic 2018-2030" describe support only in vague terms, such as "social development (including education, health and social services)" [2, 3]. Nevertheless, the Ministry of Foreign Affairs reports that the Czech Republic has provided anti-pandemic humanitarian aid to countries all over the world" including Italy, Spain, Ukraine, and China during the COVID-19 pandemic. [4]

[1] Global Health Security Funding Tracker. [https://tracking.ghscosting.org/#/data]. Accessed 14 November 2020.
[2] Ministry of Foreign Affairs of the Czech Republic. "The Development Cooperation Strategy of the Czech Republic, 2010-2017". [https://www.mzv.cz/file/762314/FINAL__Development_Cooperation_Strategy_2010_2017.pdf] Accessed 14 November 2020.
[3] Ministry of Foreign Affairs of the Czech Republic. "Development Cooperation Strategy of the Czech Republic, 2018-2030". [https://www.mzv.cz/file/2710363/CZ_Development_Cooperation_Strategy_2018_2030.pdf] Accessed 14 November 2020.
[4] Ministry of Foreign Affairs of the Czech Republic. 18.7.2017. "Czech humanitarian aid helps in the fight against Covid 19" ("ÄŒeskÃ¡ humanitÃ¡rnÃ pomoc pomÃ¡hÃ¡ bojovat proti pandemii Covid-19"). [https://www.mzv.cz/kiev/cz/zpravy_a_udalosti/ceska_humanitarni_pomoc_pomaha_bojovat.html] Accessed 14 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 is no public evidence of a plan or policy for sharing genetic and epidemiological data with international organizations or other countries, that goes beyond influenza. The National Institute of Public Health, governed by the Ministry of Health for the Czech Republic, states that its departments, such as the Department of Epidemiology of Infectious Diseases, share data and cooperate closely with the European Centre for Disease Control (ECDC) [1]. According to the website of the National Institute of Public Health, the Department of Epidemiology of Infectious Diseases ensures interaction between the ECDC and the Czech Republic at the National Focal Points (NFP) and Operational Contact Points (OCPs) of selected specific public health areas (surveillance of infectious diseases, influenza, preventable vaccines, transmissible water and foodborne diseases, portable vein diseases, emerging and re-emerging diseases, infectious hepatitis, education) [1]. It also ensures coordination of interactions between the ECDC and the Czech Republic through the National Coordinating Body (NC) of the Coordinating Competent Body (CCB) [1]. Furthermore, it claims to focus on data collection, transmission, validation and reporting in the operation of the ECDC's information system - the European Surveillance System (TESSy) - and its compatibility with national reporting systems in the Czech Republic [1]. However, whilst the indication is that these processes and communication lines are inclusive of public health emergencies, there is no explicit reference to or outline of the emergency scenario. No further evidence of this could be found in Decree No. 473/2008 on the Epidemiological Vigilance System for Selected Infections (which sets out several processes of information reporting and data sharing during outbreaks of different infectious diseases), or on the websites of the Ministry of Health or Ministry of Agriculture [2] [3] [4].

[1] National Institute of Public Health. Department of Epidemiology of Infectious Diseases. [http://www.szu.cz/oddeleni-epidemiologie-infekcnich-onemocneni] Accessed 10 October 2020.
[2] Parliament of the Czech Republic. 1.1.2009. Decree No. 473/2008, on the Epidemiological Vigilance System for Selected Infections (o systÃ©mu epidemiologickÃ½ bdÄ›losti pro vybranÃ© infekce). [https://www.zakonyprolidi.cz/cs/2008-473]. Accessed 28 November 2020.
[3] Ministry of Health of the Czech Republic. [https://www.mzcr.cz/] Accessed 28 November 2020.
[4] Ministry of Agriculture of the Czech Republic. [http://eagri.cz/public/web/mze/ministerstvo-zemedelstvi/] Accessed 28 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 public evidence that the Czech Republic has not shared samples in accordance with the PIP framework in the past two years. There is no evidence of non-compliance on the website of the World Health Organization, or in local or international media [1].

[1] World Health Organisation. Pandemic Influenza Preparedness (PIP) Framework. [http://www.who.int/influenza/pip/en/] Accessed 10 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 public evidence that the Czech Republic has not shared pandemic pathogen samples during an outbreak in the past two years. There is no evidence of a lack of sample sharing on the website of the World Health Organization, or in local or international media [1]. There is also no publicly available evidence that the Czech Republic has failed to share COVID-19 samples. [2]

[1] World Health Organisation. Virus Sharing. [http://www.who.int/influenza/pip/virus_sharing/en/] Accessed 10 November 2020.
[2] World Health Organisation. Emergencies preparedness, response: 2020. [https://www.who.int/csr/don/archive/year/2020/en/]. Accessed 4 January 2021.

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: 2

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 54

2020

Transparency International

6.1.1f

Accountability of public officials (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 2

2020

Economist Intelligence

6.1.1g

Human rights risk (Economist Intelligence score; 0-4, where 4=best)

Input number

Current Year Score: 3

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: 3

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: 4

2021

Economist Intelligence

6.1.4b

What is the level of illicit arms flows within the country?

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

Current Year Score: 4

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

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

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

Current Year Score: 3

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

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

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

Current Year Score: 4

2021

Economist Intelligence

6.1.6 Government territorial control

6.1.6a

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

Yes = 1, No = 0

Current Year Score: 1

2021

Economist Intelligence

6.1.7 International tensions

6.1.7a

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

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

Current Year Score: 4

2021

Economist Intelligence

6.2 SOCIO-ECONOMIC RESILIENCE

6.2.1 Literacy

6.2.1a

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

Input number

Current Year Score: 99.83

2016

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

6.2.2 Gender equality

6.2.2a

United Nations Development Programme (UNDP) Gender Inequality Index score

Input number

Current Year Score: 0.86

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

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

The latest available figures indicate that less than 25% of the Czech Republic's employment is in the informal sector. According to statistics published by the International Labour Organization in 2018, 9.2 % of employment in the Czech Republic was in the informal sector. [1]

[1] International Labour Organization. 2018. "Women and men in the informal economy: a statistical picture". [https://ilo.userservices.exlibrisgroup.com/discovery/delivery/41ILO_INST:41ILO_V2/1252879760002676]. Accessed 27 September 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: 0

2021

Economist Intelligence Democracy Index

6.2.5 Local media and reporting

6.2.5a

Is media coverage robust? Is there open and free discussion of public issues, with a reasonable diversity of opinions?

Input number

Current Year Score: 2

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: 0.25

Latest available.

World Bank; Economist Impact calculations

6.3 INFRASTRUCTURE ADEQUACY

6.3.1 Adequacy of road network

6.3.1a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.3.2 Adequacy of airports

6.3.2a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.3.3 Adequacy of power network

6.3.3a

What is the risk that power shortages could be disruptive?

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

Current Year Score: 3

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 73.92

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: 0.28

2008-2018

World Bank; Economist Impact

6.4.3 Natural disaster risk

6.4.3a

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

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

Current Year Score: 3

2021

Economist Intelligence

6.5 PUBLIC HEALTH VULNERABILITIES

6.5.1 Access to quality healthcare

6.5.1a

Total life expectancy (years)

Input number

Current Year Score: 79.03

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: 416.8

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 19.8

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 31.5

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 26

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: 2514.62

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: 2

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