

North Korea

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

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

1.1 ANTIMICROBIAL RESISTANCE (AMR)

1.1.1 AMR surveillance, detection, and reporting

1.1.1a

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

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

Current Year Score: 2

North Korea has published a national AMR plan for the surveillance, detection and reporting of priority AMR pathogens, according to the country's World Health Organization (WHO) National Action Plan on AMR. [1] The WHO's introduction states that North Korea "displayed its commitment towards curbing AMR by having identified AMR as one of the public health priorities." [1] Finalized with the technical support of the WHO regional and country offices, the National Strategic Plan on Antimicrobial Resistance (2018-2020) addresses surveillance, detection and reporting of priority AMR pathogens. The national AMR plan addresses the development of national human AMR surveillance and early warning systems as well as a national laboratory network in North Korea. [1] The national AMR plan sets targets for improving awareness of antimicrobial resistance, strengthening knowledge through surveillance and research, reducing the incidence of infection, and making a sustainable investment for AMR management. [1]

[1] World Health Organization. "National Strategic Plan on Antimicrobial Resistance (2018-2020)". [<http://extwprlegs1.fao.org/docs/pdf/prk182160.pdf>]. Accessed 25 April 2021.

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

North Korea has a national laboratory/laboratory system capable of testing at least 3 of the 7+1 priority pathogens. The national reference laboratory is established in Pyongyang Medical College of Kim Il Sung University. Provincial level laboratories conduct AMR testing routinely with the results submitted to the National Reference Laboratory. Research has been conducted for antibiotic resistance against 11 kinds of bacteria including E. coli, S. pneumoniae and mycobacterium tuberculosis. [1] The World Health Organization (WHO) country mission conducted in October 2018 noted that North Korea's Ministry of Public Health implemented multidrug-resistant tuberculosis program covering 11 provinces. [2] The WHO's "Global Antimicrobial Resistance and Use Surveillance System (GLASS) Report" for early implementation in 2020 has no information about North Korea's laboratory capacity for testing priority pathogens. [3]

[1] World Health Organization (WHO). "National Strategic Plan on Antimicrobial Resistance (2018-2020)". [<http://origin.searo.who.int/dprkorea/antimicrobial-resistance/dprk-national-strategic-plan-on-amr/en/>]. Accessed 18 November 2020.

[2] WHO. 23-30 October 2018. "Regional Green Light Committee Country Support Mission Report".
[https://www.who.int/docs/default-source/searo/tuberculosis/pmdt-report-dprk-2018.pdf?sfvrsn=40806ddf_2]. Accessed 18 November 2020.

[3] WHO. May 2020. "Global Antimicrobial Resistance and Use Surveillance System (GLASS) Report".
[<https://apps.who.int/iris/bitstream/handle/10665/332081/9789240005587-eng.pdf>]. Accessed 7 December 2020.

1.1.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of environmental detection or surveillance activities (e.g. in soil, waterways, etc.) for antimicrobial residues or AMR organisms conducted by the government in North Korea. Neither the Ministry of Public Health nor the Ministry of Land and Environment Protection have a public website. The Law on Environmental Protection does not address environmental AMR contamination issues. [1] The National Strategic Plan on Antimicrobial Resistance (2018-2020) recognises the need to conduct a nationwide survey on antimicrobial use and antimicrobial resistance and AMR triggering factors, indicating that current environmental detection or surveillance for antimicrobial residues or AMR organisms is not ongoing. [2]

[1] Supreme People's Assembly. 22 October 2014. "Law on Environmental Protection (환경보호법) of 9 April 1986".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=014]. Accessed 19 November 2020.

[2] World Health Organization. "National Strategic Plan on Antimicrobial Resistance (2018-2020)".

[<http://extwprlegs1.fao.org/docs/pdf/prk182160.pdf>]. Accessed 19 November 2020.

1.1.2 Antimicrobial control

1.1.2a

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

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

Current Year Score: 1

There is national regulation in place requiring prescriptions for antibiotic use for humans; however, there is evidence of gaps in enforcement. The Ministry of Public Health's "National Strategic Plan on Antimicrobial Resistance (2018-2020)" states that both the "Regulation on Prescription" and the "Guidelines on Pharmacy Work" set out principles for "sale and prescription of drugs including antimicrobials," although without any additional details. [1] The Law on Pharmaceuticals Management requires prescriptions for pharmaceutical use for humans. Article 38 of the Law on Pharmaceuticals Management states that the sale of pharmaceuticals is restricted to pharmacies and should be based on prescriptions issued by medical institutions. [2] However, in reality, patients are asked to purchase antibiotics on their own without prescription due to the generally poor state of healthcare infrastructure in North Korea, according to South Korean studies, which cite testimonies from former North Korean residents. [3, 4]

[1] World Health Organization. "National Strategic Plan on Antimicrobial Resistance (2018-2020)".

[<http://extwprlegs1.fao.org/docs/pdf/prk182160.pdf>]. Accessed 19 November 2020.

[2] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 19 November 2020.

[3] Korea Institute for Health and Social Affairs. 1 December 2012. "A Study on the Characteristics and Limitations of North Korea's Pharmaceutical Policy". [<https://www.kihasa.re.kr/hswr/assets/pdf/691/journal-32-4-631.pdf>]. Accessed 19 November 2020.

[4] Korea Foundation for International Healthcare. 31 December 2019. "2019 White Paper on Healthcare in North Korea (2019 년 북한 보건의료 백서)". [<https://dprkhealth.org/2020/06/14/2019%EB%85%84-%EB%B6%81%ED%95%9C-%EB%B3%B4%EA%B1%B4%EC%9D%98%EB%A3%8C-%EB%B0%B1%EC%84%9C/>]. Accessed 19 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 no publicly available evidence of national legislation or regulation in place requiring prescriptions for antibiotic use for animals. Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. The Law on Veterinary Drugs Management makes some mention of prescriptions for veterinary medicines, but does not specify that prescriptions are required for antibiotic use for animals. For example, Article 14 states that veterinary drug delivery (transport) shall be by a prescribed means, while Article 15 states that "prescriptions issued by the veterinary surveillance authority shall be followed". Neither specify prescriptions are required for antibiotic use for animals. Article 23 of the Law on Veterinary Drugs Management states that "the use of veterinary drugs other than over-the-counter veterinary drugs should follow veterinarian instructions", however the law simply states the requirement for veterinarian instructions in the administration of animal drugs that are not sold over the counter, rather than a mandate for a prescription. [1] The National Strategic Plan on Antimicrobial Resistance (2018-2020) states that the Law on Veterinary Drugs Management contains regulations on "rational use of antimicrobials for animals. [2] The Veterinary and Anti-epizootic Law contains no provision on animal drug prescription. [3]

[1] Supreme People's Assembly. 3 December 1998. "Law on Veterinary Drugs Management (수의약품관리법) of 24 June 1998". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[2] World Health Organization. "National Strategic Plan on Antimicrobial Resistance (2018-2020)". [<http://extwprlegs1.fao.org/docs/pdf/prk182160.pdf>]. Accessed 20 November 2020.

[3] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 7 December 2020.

1.2 ZONOTIC DISEASE

1.2.1 National planning for zoonotic diseases/pathogens

1.2.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that North Korea has a national law, plan, or equivalent strategy document on zoonotic disease, however, the Veterinary and Anti-epizootic Law contains provisions on zoonotic disease. Article 40 of the Veterinary and Anti-epizootic Law simply states that veterinary and anti-epizootic agencies, enterprises, and organisations should "prevent zoonotic disease in advance, report to health organs immediately in case of an outbreak, and prevent human infection". Article 40 also states that "health institutions should take health hygiene measures to contain a confirmed zoonotic disease outbreak" without further details. [1] North Korea has not completed a PVS Evaluation, and its Joint External Evaluation is in the pipeline at the time of research. [2] There is no additional information available as neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website.

[1] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[2] World Health Organization. "JEE Dashboard." [<https://extranet.who.int/sph/jee-dashboard#collapse-204>]. Accessed 20 November 2020.

1.2.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of 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. The Veterinary and Anti-epizootic Law is the only law that mentions zoonotic disease, and it has no information on zoonotic disease spillover risk. [1] North Korea has not completed a PVS Evaluation, and its Joint External Evaluation is in the pipeline at the time of research. [2] There is no additional information available as neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website.

[1] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[2] World Health Organization. "JEE Dashboard." [<https://extranet.who.int/sph/jee-dashboard#collapse-204>]. Accessed 20 November 2020.

1.2.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of national plans, guidelines, or laws that account for the surveillance and control of multiple zoonotic pathogens of public health concern in North Korea. The Veterinary and Anti-epizootic Law enforces

minimum safeguards, including regular animal health check-ups and vaccinations and quarantine inspection, but makes no mention of surveillance and control of multiple zoonotic pathogens. [1] Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. There is no mention of plans, guidelines or laws on zoonotic disease in the country's WHO Country Cooperation Strategy (2014-2019). [2]

[1] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[2] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

1.2.1d

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that suggests North Korea has a department, agency or similar unit dedicated to zoonotic disease that functions across ministries. Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. There is no mention of zoonotic disease in the World Health Organization's Country Cooperation Strategy (2014-2019). [1]

The Veterinary and Anti-epizootic Law states that the "central agricultural guiding organ" should provide guidance and control over veterinary and anti-epizootic work in the country without further details. [2]

[1] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

[2] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 7 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: 0

There is insufficient evidence that North Korea has a national mechanism for owners of livestock to conduct and report on disease surveillance to a central government agency. Article 28 of the Veterinary and Anti-epizootic Law requires that anyone discovering diseased animals or dead animals should notify veterinary and anti-epizootic authorities. The law does not specify how veterinary and anti-epizootic authorities should be notified. Veterinary and anti-epizootic authorities receiving reports should determine the cause of disease immediately. [1] There is no additional information available as neither the Ministry of

Public Health nor the Ministry of Agriculture has a publicly accessible website.

[1] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

1.2.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there are laws, regulations or guidelines that safeguard the confidentiality of information generated through surveillance activities for animals (for owners) in North Korea. The Veterinary and Anti-epizootic Law provides no safeguard for the confidentiality of information generated through surveillance activities for animals (for owners). [1] There is no publicly available evidence that North Korea has a general data privacy law. [2] Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website.

[1] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[2] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

1.2.2c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of surveillance of zoonotic disease in wildlife in North Korea. The Veterinary and Anti-epizootic Law also makes no mention of surveillance of zoonotic disease in wildlife. [1] Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. There is no mention zoonotic disease surveillance in the World Health Organization Country Cooperation Strategy (2014-2019). [2]

[1] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[2] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

1.2.3 International reporting of animal disease outbreaks

1.2.3a

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

Yes = 1 , No = 0

Current Year Score: 0

2019

OIE WAHIS database

1.2.4 Animal health workforce

1.2.4a

Number of veterinarians per 100,000 people

Input number

Current Year Score: -

No data available

OIE WAHIS database

1.2.4b

Number of veterinary para-professionals per 100,000 people

Input number

Current Year Score: -

No data available

OIE WAHIS database

1.2.5 Private sector and zoonotic

1.2.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a national plan on zoonotic disease or any other legislation, regulation or plan that includes mechanisms for working with the private sector in controlling or responding to zoonoses. The private sector in North Korea only exists as an unofficial economy that augments the official planned economy based on socialist ownership and centralized control. [1] The Veterinary and Anti-epizootic Law describes a general government mechanism for controlling or responding to animal disease outbreaks with no specific mention of zoonoses. [2] Neither the Ministry of Public Health nor

the Ministry of Agriculture has a publicly accessible website. There is no mention zoonotic disease in the country's WHO Country Cooperation Strategy (2014-2019). [3]

[1] South Korean Ministry of Unification. North Korea Information Portal.

[<https://nkinfo.unikorea.go.kr/nkp/overview/nkOverview.do>]. Accessed 20 November 2020.

[2] Supreme People's Assembly. 4 April 2013. "Veterinary and Anti-epizootic Law (수의방역법) of 17 December 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=005]. Accessed 20 November 2020.

[3] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

1.3 BIOSECURITY

1.3.1 Whole-of- government biosecurity systems

1.3.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has in place a record, updated within the past 5 years, of the facilities in which especially dangerous pathogens and toxins are stored or processed, including details on inventories and inventory management systems of those facilities. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. According to 38 North, a US-based website, it remains unclear "whether North Korea has all of these elements, particularly the one that is most essential to developing and producing biological warfare agents: the supporting infrastructure and necessary personnel." [1] South Korea's Ministry of National Defense maintains its assessment that "North Korea is capable of cultivating and producing various types of biological agents, such as anthrax, smallpox, and pests." Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. [2,3] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [4]

[1] 38 North. November 2020. " North Korea and Biological Weapons: Assessing the Evidence".

[https://www.38north.org/wp-content/uploads/pdf/38-North-SR-2011-Elisa-Harris_North-Korea-Biological-Weapons-Assessment.pdf]. Accessed 20 November 2020.

[2] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[3] South Korean Ministry of National Defense. "2018 Defense White Paper".

[https://www.mnd.go.kr/user/mndEN/upload/pblicitn/PBLICTNEBOOK_201908070123102770.pdf]. Accessed 20 November 2020.

[4] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has in place legislation and/or regulations related to biosecurity which address requirements such as physical containment, operation practices, failure reporting systems and/or cybersecurity of facilities in which especially dangerous pathogens and toxins are stored or processed. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. According 38 North, either the US or South Korea does not have credible evidence concerning North Korea's biosecurity capabilities. Its November 2020 report states: "The US has only fragmented insight into North Korea's BW capabilities and intentions. This is, in part, a reflection of the challenges posed by collecting intelligence on facilities, equipment and materials that can be used for both civilian and military purposes." [1] Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. [2, 3] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [4]

[1] 38 North. November 2020. "North Korea and Biological Weapons: Assessing the Evidence".

[https://www.38north.org/wp-content/uploads/pdf/38-North-SR-2011-Elisa-Harris_North-Korea-Biological-Weapons-Assessment.pdf]. Accessed 20 November 2020.

[2] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[3] South Korean Ministry of National Defense. "2018 Defense White Paper".

[https://www.mnd.go.kr/user/mndEN/upload/pblicitn/PBLICTNEBOOK_201908070123102770.pdf]. Accessed 20 November 2020.

[4] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has an established agency (or agencies) responsible for the enforcement of biosecurity legislation and regulations. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. [1, 2, 3] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [4]

[1] 38 North. November 2020. "North Korea and Biological Weapons: Assessing the Evidence".

[https://www.38north.org/wp-content/uploads/pdf/38-North-SR-2011-Elisa-Harris_North-Korea-Biological-Weapons-Assessment.pdf]. Accessed 20 November 2020.

[2] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[3] South Korean Ministry of National Defense. "2018 Defense White Paper".
[https://www.mnd.go.kr/user/mndEN/upload/pblicitn/PBLICTNEBOOK_201908070123102770.pdf]. Accessed 20 November 2020.

[4] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwcecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.1d

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that shows North Korea has taken action to consolidate its inventories of especially dangerous pathogens and toxins into a minimum number of facilities. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, or the Ministry of National Defense. Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. [1, 2, 3] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [4]

[1] 38 North. November 2020. "North Korea and Biological Weapons: Assessing the Evidence".

[https://www.38north.org/wp-content/uploads/pdf/38-North-SR-2011-Elisa-Harris_North-Korea-Biological-Weapons-Assessment.pdf]. Accessed 20 November 2020.

[2] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[3] South Korean Ministry of National Defense. "2018 Defense White Paper".

[https://www.mnd.go.kr/user/mndEN/upload/pblicitn/PBLICTNEBOOK_201908070123102770.pdf]. Accessed 20 November 2020.

[4] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwcecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.1e

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

Yes = 1 , No = 0

Current Year Score: 0

There is no 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. The World Health Organization's Country Office for North Korea does not have any information, nor is there any information in the WHO Country Cooperation Strategy (2014-2019). [1, 2] There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. [3] In 2015 North Korea claimed to have developed a herb-based drug proven effective to prevent and treat MERS, Ebola, SARS and AIDS. The article makes no mention of testing capabilities. [4] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [5]

[1] World Health Organization. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 20 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

[3] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[4] The Associated Press. 18 June 2015. "North Korea claims it has cure for MERS, Ebola and AIDS". [<https://apnews.com/article/783839dbb2d743c490197b9246c15b5c>]. Accessed 20 November 2020.

[5] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.2 Biosecurity training and practices

1.3.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea requires biosecurity training, using a standardised, 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. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. The World Health Organization's Country Office for North Korea does not have any information, nor is there any information in the WHO Country Cooperation Strategy (2014-2019). [1,2] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [3, 4] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [5]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 20 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

[3] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[4] South Korean Ministry of Unification. "North Korean Laws". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021]. Accessed 20 November 2020.

[5] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.3 Personnel vetting: regulating access to sensitive locations

1.3.3a

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

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

Current Year Score: 0

There is no publicly available evidence that regulations or licensing conditions exist in North Korea to specify that security and other personnel with access to especially dangerous pathogens, toxins, or biological materials with pandemic potential are subject to the following checks: drug testing, background checks, and psychological or mental fitness checks. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to WHO sources, VERTIC and other legislative databases. [1, 2, 3, 4] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [5]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 20 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

[3] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 20 November 2020.

[4] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

[5] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.3.4 Transportation security

1.3.4a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available information on national regulations on the safe and secure transport of infectious substances (Categories A and B) in North Korea. There is no publicly accessible website that belongs to the Ministry of Public Health, the Ministry of Agriculture, or the Ministry of National Defense. There are no available studies, reports or articles on the safe and secure transport of infectious substances in North Korea. The World Health Organization (WHO)'s Country Office for North Korea does not have relevant information on this issue. [1] There is no mention of safe and secure transport of infectious substances in the WHO Country Cooperation Strategy (2014-2019). [2] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [3] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on

biological weapons and materials, according to VERTIC. [4, 5]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 20 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 20 November 2020.

[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

[4] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[5] South Korean Ministry of Unification. "North Korean Laws". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021]. Accessed 20 November 2020.

1.3.5 Cross-border transfer and end-user screening

1.3.5a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient public evidence that North Korea has national legislation, regulation, or other guidance in place to oversee the cross-border transfer and end-user screening of especially dangerous pathogens, toxins and pathogens with pandemic potential. North Korea has a biosafety law on living modified organisms (LMOs) that addresses cross-border transfer protocol. The LMOs Safety Law establishes state control over LMO research and development, production, and exports and imports. Export and import permits are required from the state, and applications for such permits require risk assessment data. However, there is no mention of end-user screening in the law. [1] The law stipulates that all biosafety data concerning LMOs making transit across the country should be notified beforehand to the State Commission of Science and Technology, detailing names, quantities, packaging, marking, departure and arrival locations and transportation. [2] No further information is available. There is no publicly accessible website that belongs to the Ministry of Public Health, the Ministry of Agriculture, or the Ministry of National Defense. Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [3] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [4, 5]

[1] Supreme People's Assembly. 21 December 2011. "Living Modified Organisms Safety Law (유전자전이생물안전법) of 22 December 2004". [[유전자전이생물안전법](#)]. Accessed 20 November 2020

[2] United Nations. Biosafety Clearing-House. 25 October 2018. "Third National Report on the implementation of the Cartagena Protocol on Biosafety". [<https://bch.cbd.int/database/record.shtml?documentid=113916>]. Accessed 20 November 2020.

[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

[4] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[5] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 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: 0

There is insufficient evidence that North Korea has in place national biosafety legislation. The Living Modified Organisms (LMOs) Law is the country's only biosafety law. Adopted as Cabinet Decision No. 867 on 22 December 2004 and amended under Cabinet Decision No. 2052 on 21 December 2011, the LMOs Safety Law establishes state control over LMO research and development, production, exports and imports, transport, storage, and sale. Article 7 of the LMOs Law states that "this law applies to agencies, enterprises, organizations, and citizens seeking to research and develop, produce, export or import, transport, store, or sell animals, plants, microorganisms containing recombinant DNA; genetically modified food and animal feed; living modified organisms for processing; genes, vectors, primers, or primers; viruses or viroids". The law sets out basic safety requirements for transport and storage, such as insulation. The law stipulates basic requirements, principles and procedures for biosafety management such as the Advance Informed Agreement (AIA), risk assessment and management, data protection, and the import/export of living modified organisms (LMOs) as well as domestic use of LMOs. No further information on biosafety legislation is publicly available. [1, 2] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [3, 4] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [5]

[1] Supreme People's Assembly. 21 December 2011. "Living Modified Organisms Safety Law (유전자전이생물안전법) of 22 December 2004". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=012]. Accessed 20 November 2020

[2] United Nations. Biosafety Clearing-House. 25 October 2018. "Third National Report on the implementation of the Cartagena Protocol on Biosafety". [<https://bch.cbd.int/database/record.shtml?documentid=113916>]. Accessed 20 November 2020.

[3] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[4] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

[5] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. 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: 0

There is no publicly available evidence that there is an established agency responsible for the enforcement of biosafety legislation and regulations in North Korea. While North Korea's Third National Report on the implementation of the Cartagena Protocol on Biosafety names a non-permanent biosafety committee led by State Commission of Science and Technology (SCST) as an agency responsible for "reviewing and coordinating major issues related to decision-making and management in the biosafety field", it does not appear that SCST oversees worker laboratory safety. [1] Evidence suggests that the SCST committee is responsible for the LMO-related enforcement of biosafety legislation and regulations, including assessments of the potential risks of LMOs, rather than the enforcement of biosafety legislation and regulations. No further information on biosafety legislation is publicly available. Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [2] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [3, 4]

[1] United Nations. Biosafety Clearing-House. 25 October 2018. "Third National Report on the implementation of the Cartagena Protocol on Biosafety". [<https://bch.cbd.int/database/record.shtml?documentid=113916>]. Accessed 20 November 2020.

[2] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

[3] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[4] South Korean Ministry of Unification. "North Korean Laws". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

1.4.2 Biosafety training and practices

1.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of mandatory biosafety training using a standardized, required approach, such as through a common curriculum or a train-the-trainer program, for personnel working in facilities housing or working with especially dangerous pathogens, toxins, or biological materials with pandemic potential in North Korea. While North Korea's Third National Report on the implementation of the Cartagena Protocol on Biosafety states that the State Commission of Science and Technology "regularly organizes training on risk assessment and management", the report notes that "training addresses only limited LMOs" and that there is a lack of adequate training material. [1] In addition, Article 42 of the Law on Prevention of Infectious Diseases simply states that medical science research and education institutions should "strengthen scientific research work to resolve issues on improving infectious disease prevention work and systematically train technicians and experts, including physicians, in the infectious disease prevention sector" without providing any detail on a standardized, required approach. [2] There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, the Ministry of National Defense. Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [3] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [4, 5]

[1] United Nations. Biosafety Clearing-House. 25 October 2018. "Third National Report on the implementation of the Cartagena Protocol on Biosafety". [<https://bch.cbd.int/database/record.shtml?documentid=113916>]. Accessed 20 November 2020.

[2] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 20 November 2020.

[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

[4] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

[5] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

1.5 DUAL-USE RESEARCH AND CULTURE OF RESPONSIBLE SCIENCE

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

1.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has conducted an assessment to determine whether ongoing research is occurring on dual use research. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, or the Ministry of National Defense. Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [1, 2] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [3]

[1] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[2] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a national policy or legislation concerning dual use research, such as research with especially dangerous pathogens, toxins, and/or pathogens with pandemic potential. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, or the Ministry of People's National Defense. Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [1] South Korea's North Korean law database contains no law concerning dual use research in North Korea. [2] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [3]

[1] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[2] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 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 public evidence that there exists an agency responsible for research on especially dangerous pathogens, pathogens with pandemic potential, and/or other dual use research. There is no publicly accessible website that belongs to either the Ministry of Public Health, the Ministry of Agriculture, or the Ministry of People's National Defense. Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [1] The South Korean Ministry of Unification's North Korea portal provides no information on any such agency in North Korea. [2] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [3]

[1] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[2] South Korean Ministry of Unification. North Korea Information Portal. [<https://nkinfo.unikorea.go.kr/nkp/main/portalMain.do>]. Accessed 7 December 2020.

[3] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 20 November 2020.

1.5.2 Screening guidance for providers of genetic material

1.5.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of national legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA before it is sold. The World Health Organization (WHO) Country Office for North Korea does not have relevant information on this issue. [1] Both the VERTIC database and other legislative databases make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [2. 3] There is no mention of legislation, regulation, policy, or other guidance, requiring the screening of synthesized DNA in North Korea's Third National Report on the implementation of the Cartagena Protocol on Biosafety. [4] Neither the Ministry of Public Health, the Ministry of Agriculture nor the Ministry of National Defense has a publicly accessible website. There is nothing mentioned in the country's WHO Country Cooperation Strategy (2014-2019). [5] Although North Korea is party to the Biological Weapons Convention, it has not submitted Confidence Building Measures since 1990. [6]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 21 November 2020.

[2] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 December 2020.

[3] South Korean Ministry of Unification. "North Korean Laws". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021]. Accessed 20 November 2020.

[4] United Nations. Biosafety Clearing-House. 25 October 2018. "Third National Report on the implementation of the Cartagena Protocol on Biosafety". [<https://bch.cbd.int/database/record.shtml?documentid=113916>]. Accessed 21 November 2020.

[5] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[6] United Nations Office at Geneva. "Available Confidence Building Measures Reports". [<https://bwc-ecbm.unog.ch/state/democratic-peoples-republic-korea>]. Accessed 21 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: 2

2019

World Health Organization

1.6.1b

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

Yes = 1, No = 0

Current Year Score: 0

2020

OIE WAHIS database

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

2.1 LABORATORY SYSTEMS STRENGTH AND QUALITY

2.1.1 Laboratory testing for detection of priority diseases

2.1.1a

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

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

Current Year Score: 0

There is insufficient evidence that North Korea's national laboratory system has the capacity to conduct diagnostic tests for at least 5 of the 10 WHO-defined core tests. North Korea does not have a publicly accessible government website, and there is no information available about the country's testing capabilities. However, given the extensive documentation on North Korea's tuberculosis situation, there is evidence that the country can conduct the core test for tuberculosis (microscopy). The World Health Organization Country (WHO) conducted a national TB prevalence survey in North Korea between 2015 and 2016 as a cross-sectional survey utilizing multi-stage, stratified, random cluster sampling methods. [1] Evidence suggests that North Korea lacks internal capacity to meet its testing needs. During an outbreak of H1N1 influenza between December 2017 and January 2018, the Ministry of Public Health sought international assistance with procurement of rapid testing kits. [2] The WHO Country Cooperation Strategy (2014-2019) for North Korea suggests that "smear microscopy [for tuberculosis] is widely available and accessible across the country through a network of over 320 laboratories established at county, province and central levels". [3] North Korea officially claims to have no domestic case of the novel coronavirus (COVID-19). However, according to media reports, North Korea has received COVID-19 testing kits from South Korea, Russia and China. [4, 5, 6]

[1] World Health Organization (WHO). Country Office for North Korea. "Comprehensive Report of the DPR Korea's National TB Prevalence Survey 2015-2016". [<http://origin.searo.who.int/dprkorea/documents/report-of-the-dprk-national-tb-prevalence-survey/en/>]. Accessed 21 November 2020.

[2] Outbreak News Today. 29 January 2018. "North Korea reports H1N1 influenza outbreak". [<http://outbreaknewstoday.com/north-korea-reports-h1n1-influenza-outbreak-23798/>]. Accessed 21 November 2020.

[3] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[4] Korea Risk Group. NK News. 21 August 2020. "COVID-19 test kits sent by private South Korean group arrive in North Korea". [<https://www.nknews.org/2020/08/covid-19-test-kits-sent-by-private-south-korean-group-arrive-in-north-korea/>]. Accessed 21 November 2020.

[5] UPI. 27 April 2020. "China dispatches COVID-19 test kits to North Korea". [https://www.upi.com/Top_News/World-News/2020/04/27/China-dispatches-COVID-19-test-kits-to-North-Korea/4191587993885/]. Accessed 21 November 2020.

[6] U.S. News. 12 March 2020. "Russia Delivers Coronavirus Test Kits to North Korea".

[<https://www.usnews.com/news/world-report/articles/2020-03-12/russia-delivers-coronavirus-test-kits-to-north-korea>]. Accessed 21 November 2020.

2.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence that North Korea has 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. Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. The World Health Organization (WHO) Country Cooperation Strategy (2014-2019) for North Korea does not have information supporting the existence of such a national document. [1] State healthcare policy in North Korea is not clear. The national health priorities identified so far indicate no evidence of a national plan for testing during a public health emergency. [2] CNN reported on 20 July 2020: "As of early July, only 922 people in a country of about 25 million had been tested for the virus [COVID-19], according to the WHO representative in North Korea, Dr. Edwin Salvador." [3]

[1] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] BMJ Global Health. 2019. "National Health Priorities under the Kim Jong Un regime in Democratic People's Republic of Korea (DPRK), 2012-2018". [https://gh.bmj.com/content/4/Suppl_7/e001518]. Accessed 21 November 2020.

[3] CNN. 20 July 2020. "Why North Korea says it's joining the coronavirus vaccine race, even though it has no cases". [<https://www.cnn.com/2020/07/20/asia/north-korea-covid-vaccine-intl-hnk/index.html>]. Accessed 21 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: 0

There is no publicly available evidence that North Korea has a national laboratory that serves as an accredited reference facility. Although there is a national reference laboratory for tuberculosis, established under the Ministry of Public Health with support from Christian Friends of Korea and Stanford University School of Medicine, there is insufficient evidence that it is accredited. This facility has the ability to perform WHO-recommended diagnostics (fluorescent acid-fast microscopy, culture-based TB identification methods, drug susceptibility testing by conventional culture methods, and molecular testing using GeneXpert technology). [1] The Pyongyang General Hospital under construction in the capital could meet some of the standards for a national laboratory. State media reports suggest extensive preparations to equip and staff the flagship hospital. However, there is no evidence that the Pyongyang General Hospital has been completed as of December 2020. [2, 3] There is no publicly available evidence that this laboratory is accredited. North Korea does not have a publicly accessible government website for the Ministry of Public Health or the Ministry of Agriculture. There is no mention of accreditation of

this laboratory in the country's World Health Organization (WHO) Country Cooperation Strategy (2014-2019) nor does the website of the WHO Country Office for North Korea have any relevant information. [4, 5]

[1] Christian Friends of Korea. "National TB Reference Lab". [<https://www.cfk.org/nrl-training-center/>]. Accessed 21 November 2020.

[2] 38 North. 24 September 2020. "Pyongyang General Hospital: A Bright White Beacon After the Rains". [<https://www.38north.org/2020/09/pyongyang092420/>]. Accessed 21 November 2020.

[3] Radio Free Asia. 3 December 2020. [https://www.rfa.org/korean/in_focus/ne-kw-12032020071258.html]. Accessed 7 December 2020.

[4] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[5] WHO. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 21 November 2020.

2.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has a national laboratory that serves as a reference facility subject to external quality assurance review. Although there is a national reference laboratory for tuberculosis, established under the Ministry of Public Health with support from Christian Friends of Korea and Stanford University School of Medicine, there is insufficient evidence that it undergoes external review. This facility has the ability to perform WHO-recommended diagnostics (fluorescent acid-fast microscopy, culture-based TB identification methods, drug susceptibility testing by conventional culture methods, and molecular testing using GeneXpert technology). However, there is no publicly available evidence that this laboratory is subject to external quality assurance review. [1] North Korea does not have a publicly accessible government website for the Ministry of Public Health or the Ministry of Agriculture. There is no mention of accreditation of this laboratory in the country's World Health Organization Country Cooperation Strategy (2014-2019) nor does the website of the WHO Country Office for North Korea have any relevant information. [2, 3]

[1] Christian Friends of Korea. "National TB Reference Lab". [<https://www.cfk.org/nrl-training-center/>]. Accessed 21 November 2020.

[2] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[3] WHO. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 21 November 2020.

2.2 LABORATORY SUPPLY CHAINS

2.2.1 Specimen referral and transport system

2.2.1a

Is there a nationwide specimen transport system?

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a system existing in North Korea to transport specimens nationwide from the site of collection to a laboratory for testing. The Law on Prevention of Infectious Diseases provides protocol for transporting infected patients but not specimens. [1] South Korea's North Korean law database contains no law a system of specimen transportation. [2] Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. There is no mention of a specimen transport system in the World Health Organization Country Cooperation Strategy (2014-2019). [3] Both the VERTIC database and other academic sources make no mention of pertinent legislation or policies. North Korea has no known legislation on biological weapons and materials, according to VERTIC. [4]

[1] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 21 November 2020.

[2] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[3] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[4] VERTIC. "BWC Legislation Database". [<https://www.vertic.org/programmes/biological-weapons-and-materials/bwc-legislation-database/k/>]. Accessed 7 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 that North Korea has a plan in place to rapidly authorize or license laboratories to supplement the capacity of the national public health laboratory system to scale-up testing during an outbreak. Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. There is no mention of a surge testing facility in the World Health Organization Country Cooperation Strategy (2014-2019). [1] State healthcare policy in North Korea is not clear. The national health priorities identified so far indicate no evidence of a national plan for testing during a public health emergency. [2] CNN reported on 20 July 2020: "As of early July, only 922 people in a country of about 25 million had been tested for the virus [COVID-19], according to the WHO representative in North Korea, Dr. Edwin Salvador." [3]

[1] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] BMJ Global Health. 2019. "National Health Priorities under the Kim Jong Un regime in Democratic People's Republic of Korea (DPRK), 2012-2018". [https://gh.bmj.com/content/4/Suppl_7/e001518]. Accessed 7 December 2020.

[3] CNN. 20 July 2020. "Why North Korea says it's joining the coronavirus vaccine race, even though it has no cases". [<https://www.cnn.com/2020/07/20/asia/north-korea-covid-vaccine-intl-hnk/index.html>]. Accessed 21 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 publicly available evidence that North Korea is conducting ongoing event-based surveillance and analysis for infectious disease. The World Health Organization (WHO) Country Cooperation Strategy (2014-2019) for North Korea notes the there is a piloted "integrated disease surveillance system" in the country, but information is limited and there is no evidence this system is event-based. Neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website. [1] South Korea's North Korean law database contains no law supporting the existence of ongoing event-based surveillance and analysis for infectious disease in North Korea. [2] The latest findings available on the status of event-based infectious disease surveillance and analysis are found in the WHO's "Report of the Joint CSR and IVD Review 15-26 September 2008." The report states that North Korea has a surveillance system with the "capacity to detect outbreaks and, within 24 hours, relay that information to the national level," while "diseases under surveillance vary from time to time and from place to place." However, this report is over 10 years old and makes no mention of event-based surveillance. [3]

[1] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)".

[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[3] WHO Regional Office for South-East Asia. September 2008. "Integrated Disease Surveillance in Democratic People's Republic of Korea". [http://origin.searo.who.int/entity/emerging_diseases/documents/Publication_SEA-CD-184.pdf]. Accessed 21 November 2020.

2.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea reported a potential public health emergency of international concern (PHEIC) to the WHO within the last two years. The last recorded case report was filed in January 2018 when the Ministry of Public Health reported to the World Health Organization (WHO) a cumulative total of 126,574 influenza like illness (ILI) cases from 1 December 2017 to 16 January 2018. [1] CNBC reported on 19 February 2020 that "there are no indications that there are cases of the new coronavirus in North Korea," citing a WHO official. [2] The WHO Coronavirus Disease (COVID-19) Dashboard, updated 21 November 2020, shows no confirmed case of COVID-19 in North Korea. [3] No further information is available, as neither the Ministry of Public Health nor the Ministry of Agriculture has a publicly accessible website.

[1] World Health Organization (WHO). North Korea Country Office. 18 April 2018. "Seasonal Influenza outbreak in DPR Korea 2018-Situation Report". [<http://origin.searo.who.int/dprkorea/mediacentre/situation-report-influenza-5-18042018.pdf>]. Accessed 21 November 2020.

[2] CNBC. 19 February 2020. "World Health Organization says there are 'no indications' of coronavirus cases in North Korea". [<https://www.cnbc.com/2020/02/19/who-says-no-signs-of-coronavirus-cases-in-north-korea.html>]. Accessed 21 November 2020.

[3] WHO. 21 November 2020. "Coronavirus Disease (COVID-19) Dashboard". [<https://covid19.who.int/table>]. Accessed 21 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: 0

There is no publicly available evidence that the government of North Korea operates an electronic reporting surveillance system at both the national and sub-national level. North Korea does not have a publicly accessible government website for the Ministry of Public Health. South Korea's North Korean law database contains no law supporting the existence of an electronic reporting surveillance system in North Korea. [1] According to the World Health Organization Country Cooperation Strategy (2014-2019), health information of the population is collected at primary health care level and reported to county and provincial level and collated and recorded in the Ministry of Public Health. However, it makes no mention of any electronic reporting surveillance system. [2] The WHO's "Report of the Joint CSR and IVD Review 15-26 September 2008" has no mention of an electronic reporting surveillance system in place in North Korea. [3]

[1] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[2] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[3] WHO Regional Office for South-East Asia. September 2008. "Integrated Disease Surveillance in Democratic People's Republic of Korea". [http://origin.searo.who.int/entity/emerging_diseases/documents/Publication_SEA-CD-184.pdf]. Accessed 21 November 2020.

2.3.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that the government of North Korea operates an electronic reporting surveillance system that collects ongoing/real time laboratory data. South Korea's North Korean law database contains no law supporting the existence of any electronic reporting surveillance system in North Korea. [1] North Korea does not have a publicly accessible government website for the Ministry of Public Health. According to the World Health Organization Country Cooperation Strategy (2014-2019), health information of the population is collected at primary health care level and reported to county and provincial level and collated and recorded in the Ministry of Public Health. However, it makes no mention of any electronic reporting surveillance system. [2] The WHO's "Report of the Joint CSR and IVD Review 15-26

September 2008" has no mention of an electronic reporting surveillance system in place in North Korea. [3]

[1] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[2] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[3] WHO Regional Office for South-East Asia. September 2008. "Integrated Disease Surveillance in Democratic People's Republic of Korea". [http://origin.searo.who.int/entity/emerging_diseases/documents/Publication_SEA-CD-184.pdf]. Accessed 21 November 2020.

2.4 SURVEILLANCE DATA ACCESSIBILITY AND TRANSPARENCY

2.4.1 Coverage and use of electronic health records

2.4.1a

Are electronic health records commonly in use?

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

Current Year Score: 0

There is no documented evidence of electronic health records (EHRs) commonly in use in North Korea. There is no externally accessible government website for the Ministry of Public Health. The World Health Organization's Country Cooperation Strategy (2014-2019) for North Korea has no mention of electronic health records commonly in use in North Korea, although it does mention that a telemedicine system has been established in the country. [1] The current North Korean government appears to prioritize the nationwide rollout of some form of telemedicine, according to BMJ Global Health. This report does not mention EHRs. [2] South Korea's North Korean law database contains no law supporting the widespread use of EHRs in North Korea. [3]

[1] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] BMJ Global Health. 2019. "National Health Priorities under the Kim Jong Un regime in Democratic People's Republic of Korea (DPRK), 2012-2018". [https://gh.bmj.com/content/4/Suppl_7/e001518]. Accessed 21 November 2020.

[3] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

2.4.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is no documented evidence of electronic health records commonly in use in North Korea, and thus the national public health system does not have access to electronic health records (EHRs) of individuals in the country. There is no externally accessible government website for the Ministry of Public Health. The World Health Organization's Country Cooperation Strategy (2014-2019) for North Korea has no mention of electronic health records commonly in use in North Korea, although it does mention that a telemedicine system has been established in the country. [1] The current North Korean government

appears to prioritize the nationwide rollout of some form of telemedicine, according to BMJ Global Health. This report does not mention EHRs. [2] South Korea's North Korean law database contains no law supporting the widespread use of EHRs in North Korea. [3]

[1] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)".

[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] BMJ Global Health. 2019. "National Health Priorities under the Kim Jong Un regime in Democratic People's Republic of Korea (DPRK), 2012-2018". [https://gh.bmj.com/content/4/Suppl_7/e001518]. Accessed 21 November 2020.

[3] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

2.4.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no documented evidence of electronic health records (EHRs) commonly in use in North Korea, and thus relevant no data standards to ensure data is comparable. There is no externally accessible government website for the Ministry of Public Health. The World Health Organization's Country Cooperation Strategy (2014-2019) for North Korea has no mention of electronic health records commonly in use in North Korea, although it does mention that a telemedicine system has been established in the country. [1] The current North Korean government appears to prioritize the nationwide rollout of some form of telemedicine. according to BMJ Global Health. This report does not mention EHR. [2] Regarding standards more broadly, standards in North Korea are set by the Committee for Standardization (CSK), which is a member of the International Organization for Standardization (ISO). The ISO's description of the committee's work is as follows: "CSK is a specialized state agency responsible for coordination, direction and control of nationwide standardization activities. It gives uniform guidance on standardization in the committees and ministries of the Cabinet, provinces, cities, and counties, factories and enterprises, makes a final review of draft state standards and ratifies, promulgates and publishes them". The CSK makes no mention of standards in place for electronic health records. [3] South Korea's North Korean law database contains no law supporting the widespread use of EHR in North Korea. [4]

[1] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)".

[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] BMJ Global Health. 2019. "National Health Priorities under the Kim Jong Un regime in Democratic People's Republic of Korea (DPRK), 2012-2018". [https://gh.bmj.com/content/4/Suppl_7/e001518]. Accessed 21 November 2020.

[3] International Organization for Standardization. "CSK: Democratic People's Republic of Korea".

[<https://www.iso.org/member/1657.html>]. Accessed 21 November 2020.

[4] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

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

2.4.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence of any established mechanism at the relevant ministries responsible for animal, human and wildlife surveillance to share data. Neither the Ministry of Public Health, the Ministry of Land and Environment Protection nor the Ministry of Agriculture has a publicly accessible website. There is no mention of any mechanisms to share animal, human and wildlife surveillance data in the World Health Organization (WHO) Country Cooperation Strategy (2014-2019) or on the WHO Country Office webpage for North Korea. [1,2] South Korea's North Korean law database contains no law suggesting the existence of any One Health mechanism in North Korea. [3]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 21 November 2020.

[2] WHO. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[3] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 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: 0

There is no publicly available evidence that the country makes de-identified health surveillance data on infectious diseases publicly available via reports (or other format) on government websites. North Korea has no externally accessible government website for the Ministry of Public Health or the Ministry of Agriculture to verify the online availability of de-identified health surveillance data. According to the WHO Country Cooperation Strategy (2014-2019), health information of the population is collected at primary health care level and reported to county and provincial level and collated and recorded in the Ministry of Public Health. There is no mention, however, of how this information is made available publicly available, if at all. [1] South Korea's North Korean law database contains no law with relevant provisions. [2]

[1] World Health Organization (WHO). "WHO Country Cooperation Strategy (2014-2019)".

[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 21 November 2020.

[2] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

2.4.3b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that North Korea makes 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). North Korea has no externally accessible government website for the Ministry of Public Health. North Korea consistently maintains its official line denying the existence of any COVID-19 case in the country. [1] The World Health Organization Coronavirus Disease (COVID-19) Dashboard, updated 21 November 2020, shows no confirmed case of COVID-19 in North Korea. [2]

[1] The Korea Herald. 3 November 2020. "N. Korea repeats claim of zero COVID-19 infection: WHO".
[<http://www.koreaherald.com/view.php?ud=20201103000788>]. Accessed 21 November 2020.

[2] World Health Organization (WHO). 21 November 2020. "Coronavirus Disease (COVID-19) Dashboard".
[<https://covid19.who.int/table>]. Accessed 21 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: 0

There is no publicly available evidence that laws, regulations, or guidelines exist in North Korea to safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities. According to the World Health Organization (WHO), data generated from provincial hospitals are compiled by the National Institute of Public Health Administration (NIPHA) and Central Hygiene and Anti Epidemic Station (CHAES) for communicable diseases. [1] Both institutions are responsible for data management under the guidance of the Ministry of Public Health. [1] There is no publicly available evidence that North Korea has a general data privacy law. [2] The Ministry of Public Health does not have a publicly accessible website. There are no laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals in the country's WHO Country Cooperation Strategy (2014-2019). [3]

[1] World Health Organisation (WHO). North Korea Country Office. "Category 4: Health systems National health policies and strategies, Integrated health services delivery, Regulatory capacity".

[<http://origin.searo.who.int/dprkorea/areas/healthsystems/en/>]. Accessed 22 November 2020.

[2] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021]. Accessed 22 November 2022.

[3] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 22 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: 0

There is no publicly available evidence that laws, regulations, or guidelines exist in North Korea to safeguard the confidentiality of identifiable health information for individuals, such as that generated through health surveillance activities, and thus no mention of protections from cyber attacks. According to the World Health Organization (WHO), data generated from provincial hospitals are compiled by the National Institute of Public Health Administration (NIPHA) and Central Hygiene and Anti Epidemic Station (CHAES) for communicable diseases. [1] Both institutions are responsible for data management under the guidance of the Ministry of Public Health. [1] There is no publicly available evidence that North Korea has a general data privacy law. [2] The Ministry of Public Health does not have a publicly accessible website. There are no laws, regulations, or guidelines that safeguard the confidentiality of identifiable health information for individuals in the country's WHO Country Cooperation Strategy (2014-2019). [3]

[1] World Health Organisation (WHO). North Korea Country Office. "Category 4: Health systems National health policies and strategies, Integrated health services delivery, Regulatory capacity".

[<http://origin.searo.who.int/dprkorea/areas/healthsystems/en/>]. Accessed 22 November 2020.

[2] South Korean Ministry of Unification. "North Korean Laws".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsid=BBSMSTR_00000000021]. Accessed 22 November 2022.

[3] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 22 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: 0

There is insufficient evidence that the North Korean government has made a commitment to share surveillance data during a public health emergency with other countries in the region through public statements, legislation, and/or a cooperative agreement.

In November 2018 North Korea agreed with South Korea to share information on infectious diseases as part of a peace initiative with South Korea, following an inter-Korean summit in September 2018. No further details are available from the agreement. There has been no reported follow-up action. [1] There is no evidence that there exists any surveillance cooperation with neighboring China, the traditional ally of North Korea. According to an epidemiology survey of infectious diseases in North Korean travelers conducted in 2015-17, "North Korean travelers, who enter China through Dandong port, have high incidence of TB, HBV and syphilis infection." The study suggests that "active surveillance at China-DPRK port can help with timely diagnosis of travelers with infectious diseases to prevent or at least postpone imported local transmission." [2] The World Health Organization (WHO)'s North Korea Country Office does not have relevant information, nor does the WHO Country Cooperation Strategy (2014-2019). There is no externally accessible government website for the Ministry of Public Health. [3, 4]

[1] South Korean Ministry of Unification. 7 November 2018. "Joint Statement on Inter-Korean Healthcare Subcommittee Meeting". [<https://dialogue.unikorea.go.kr/ukd/e/usrtalkmanage/View.do>]. Accessed 22 November 2020.

[2] BMC Infectious Diseases. 5 January 2019. "Epidemiology survey of infectious diseases in North Korean travelers, 2015-2017". [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6321685/>]. Accessed 22 November 2020.

[3] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 22 November 2020.

[4] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 22 November 2020.

2.5 CASE-BASED INVESTIGATION

2.5.1 Case investigation and contact tracing

2.5.1a

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

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

Current Year Score: 0

There is insufficient evidence that North Korea 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 known externally accessible government website for the Ministry of Public Health. However, there is some evidence that North Korea has a contact tracing regime in place, through news stories during the COVID-19 pandemic. Reuters reported on 5 August 2020, citing a World Health Organization (WHO) official, that authorities had quarantined more than 3,635 primary and secondary contacts with North Korea's first suspected COVID-19 patient. "As many as 64 first contacts and 3,571 secondary contacts of the suspected case have been identified and quarantined in government facilities for a period of 40 days," the report said, citing Edwin Salvador, WHO representative for North Korea. [1] The Law on Prevention of Infectious Diseases has no relevant provision. [2]

[1] Reuters. 5 August 2020. "WHO says North Korea's COVID-19 test results for first suspected case 'inconclusive'". [<https://www.reuters.com/article/us-health-coronavirus-northkorea/who-says-north-koreas-covid-19-test-results-for-first-suspected-case-inconclusive-idUSKCN2511CG>]. Accessed 22 November 2020.

[2] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbsSubId=016]. Accessed 7 December 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 North Korea 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 known externally accessible government website for the Ministry of Public Health. However, there is evidence of legislation on isolating people who have confirmed or suspected cases of an infectious disease. Article 3 of the Law on

Prevention of Infectious Diseases mentions isolation as a key principle for infectious disease prevention. It requires the state to "put great effort into detecting and isolating sources of infection." [1] South Korea's Yonhap News Agency reported on 22 April 2020 that North Korea's Supreme People's Assembly revised the Law on Prevention of Infectious Diseases to require national- and subnational-level enforcement to detect and isolate sources of infection and block transmission routes. No further details are available. [2]. Reuters reported on 5 August 2020, citing a World Health Organization (WHO) official, that authorities had quarantined more than 3,635 primary and secondary contacts with North Korea's first suspected COVID-19 patient. "As many as 64 first contacts and 3,571 secondary contacts of the suspected case have been identified and quarantined in government facilities for a period of 40 days," the report said, citing Edwin Salvador, WHO representative for North Korea. [3] No information is available on accompanying wraparound services.

[1] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 22 November 2020.

[2] Yonhap News Agency. 22 April 2020. "North Korea Revises Law on Prevention of Infectious Diseases to 'systemize' coronavirus response". [<https://www.yna.co.kr/view/AKR20200422075100504>]. Accessed 22 November 2020.

[3] Reuters. 5 August 2020. "WHO says North Korea's COVID-19 test results for first suspected case 'inconclusive'". [<https://www.reuters.com/article/us-health-coronavirus-northkorea/who-says-north-koreas-covid-19-test-results-for-first-suspected-case-inconclusive-idUSKCN2511CG>]. Accessed 22 November 2020.

2.5.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that North Korea makes de-identified data on contact tracing efforts for COVID-19 (including the percentage of new cases from identified contacts) available via daily reports (or other format) on government websites (such as the Ministry of Health, or similar). There is no known externally accessible government website for the Ministry of Public Health. The World Health Organization (WHO) Coronavirus Disease (COVID-19) Dashboard, updated 22 November 2020, shows no confirmed case of COVID-19 in North Korea. [1] Reuters reported on 5 August 2020, citing a WHO official, that authorities had quarantined more than 3,635 primary and secondary contacts with North Korea's first suspected COVID-19 patient. "As many as 64 first contacts and 3,571 secondary contacts of the suspected case have been identified and quarantined in government facilities for a period of 40 days," the report said, citing Edwin Salvador, WHO representative for North Korea. [2] However, there is no public-facing database tracking these contact tracing efforts.

[1] World Health Organization (WHO). 21 November 2020. "Coronavirus Disease (COVID-19) Dashboard". [<https://covid19.who.int/table>]. Accessed 22 November 2020. Reuters

[2] Reuters. 5 August 2020. "WHO says North Korea's COVID-19 test results for first suspected case 'inconclusive'". [<https://www.reuters.com/article/us-health-coronavirus-northkorea/who-says-north-koreas-covid-19-test-results-for-first-suspected-case-inconclusive-idUSKCN2511CG>]. Accessed 22 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 evidence that a joint plan or cooperative agreement exists 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. There is no known externally accessible government website for the Ministry of Public Health. Article 16 of the Law on Prevention of Infectious Diseases simply states that "the ad-hoc State Emergency Anti-Epidemic Commission should implement measures to "isolate travelers from other countries in a designated location over a set period of time and take medical surveillance measures" in the event of a worldwide infectious disease outbreak. The composition and operational arrangements of the commission are not known. [1]

[1] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 22 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: 0

There is insufficient evidence that applied epidemiology training program (such as FETP) is available in North Korea. There is no North Korean program on TEPHINET website. [1] There is no evidence that resources are provided by the government to send citizens to another country to participate in applied epidemiology training programs (such as FETP). The Ministry of Public Health does not have a publicly accessible website. [2] There is some indication that FETP programs are under development. Kim Il Sung University states on its website that a "Field Epidemiology Training Program (FETP) basic course" is available for district health management and rapid response teams. The author, Kim Won Sam at Pyongyang Medical College of Kim Il Sung University, states that the "overall course goal is to enhance the capabilities of District Health Management Teams responsible for outbreak detection, investigation and response, while promoting communication and collaboration

between team members according to IHR (2005) core capacities." However, there is no further evidence available to show that this program is in operation or that any other FETP course has been started in North Korea. The university also stated that the Ministry of Public Health is "interested in setting up its own Field Epidemiology Training Program (FETP)." There is no evidence that the aforementioned FETP has become available since 2016. [3]

[1] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [<http://www.tephinet.org/>]. Accessed 22 November 2020.

[2] Centers for Disease Control and Prevention (CDC). "Global Health Protection and Security". [<https://www.cdc.gov/globalhealth/healthprotection/fetp/about.html>]. Accessed 22 November 2020.

[3] Kim Il Sung University. 21 November 2016. "Human Resource Development for Epidemiology in Pyongyang Medical College of Kim Il Sung University". [<http://www.ryongnamsan.edu.kp/univ/en/research/articles/81b3833e2504647f9d794f7d7b9bf341>]. Accessed 22 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: 0

There is no evidence that applied epidemiology training program explicitly inclusive of animal health professionals or a specific animal health field epidemiology training program offered (such as FETPV) is available in North Korea. There is no evidence that FETP is available in North Korea that includes veterinary and animal health professionals. There is no North Korean program on TEPHINET website. [1] The Ministry of Public Health does not have a publicly accessible website. Kim Il Sung University states on its website that a "Field Epidemiology Training Program (FETP) basic course" is available for district health management and rapid response teams. The author, Kim Won Sam at Pyongyang Medical College of Kim Il Sung University, states that the "overall course goal is to enhance the capabilities of District Health Management Teams responsible for outbreak detection, investigation and response, while promoting communication and collaboration between team members according to IHR (2005) core capacities." However, there is no further evidence available to show that this program is in operation or that any other FETP course has been started in North Korea. The university also stated that the Ministry of Public Health is "interested in setting up its own Field Epidemiology Training Program (FETP)." There is no evidence that the aforementioned FETP has become available since 2016, either for humans or animal professionals. [3]

[1] Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET). [<http://www.tephinet.org/>]. Accessed 22 November 2020.

[2] Centers for Disease Control and Prevention (CDC). "Global Health Protection and Security". [<https://www.cdc.gov/globalhealth/healthprotection/fetp/about.html>]. Accessed 22 November 2020.

[3] Kim Il Sung University. 21 November 2016. "Human Resource Development for Epidemiology in Pyongyang Medical College of Kim Il Sung University". [<http://www.ryongnamsan.edu.kp/univ/en/research/articles/81b3833e2504647f9d794f7d7b9bf341>]. Accessed 22 November 2020.

2.6.2 Epidemiology workforce capacity

2.6.2a

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

Yes = 1 , No = 0

Current Year Score: 0

2020

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

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

3.1 EMERGENCY PREPAREDNESS AND RESPONSE PLANNING

3.1.1 National public health emergency preparedness and response plan

3.1.1a

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

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

Current Year Score: 0

There is no publicly available evidence that North Korea has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. The Ministry of Public Health does not have a publicly available website. The Ministry of Public Health (MOPH)'s "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" addresses communicable disease prevention and control as one of the strategic areas for 2016-2020 with no details about a national public health emergency response. [1] Although the Public Health Law mandates centralized guidance over public health, the law provides no planning mechanism regarding public health emergency response. Article 46 of the law states: "The central health guiding organ shall establish a system of guidance over public health work properly." [2] The Law on Prevention of Infectious Diseases does not have mention of a national public health emergency response plan. [3] The WHO Country Cooperation Strategy (2014-2019) does not include any mention of a national public health emergency response plan. [4] The 5-year National Strategic Plan on measles elimination and rubella, sponsored by the World Health Organization and UNICEF, states that the MOPH is in the process of revising "Outbreak Preparedness and Response Guidelines" specific to measles and rubella. The revision will address detailed standard operating procedures, roles, and responsibilities. [5] South Korea's North Korean law database contains no other law with relevant provisions. [6]

- [1] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.
- [2] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.
- [3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.
- [4] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 7 December 2020.
- [5] WHO. North Korea Country Office. 2018. "The Democratic People's Republic of Korea 5-year National Strategic Plan on measles elimination and rubella/congenital rubella syndrome control 2018-2022". [<http://origin.searo.who.int/dprkorea/documents/5-year-national-strategic-plan-measles-elimination-and-rubella-2/en/>]. Accessed 7 December 2020.
- [6] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

3.1.1b

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

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

Current Year Score: 0

There is no publicly available evidence that North Korea has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, and therefore no plan updated in the past 3 years. There is no publicly available evidence that North Korea has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. The Ministry of Public Health does not have a publicly available website. The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [1] Although the Public Health Law mandates centralized guidance over public health, the law provides no planning mechanism regarding public health emergency response. Article 46 of the law states: "The central health guiding organ shall establish a system of guidance over public health work properly." [2] The Law on Prevention of Infectious Diseases does not have mention of a national public health emergency response plan. [3] South Korea's North Korean law database contains no other law with relevant provisions. [4] The WHO Country Cooperation Strategy (2014-2019) does not include any mention of a national public health emergency response plan. [5] South Korea's North Korean law database contains no other law with relevant provisions. [6]

- [1] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.
- [2] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.

[4] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[5] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 7 December 2020.

[6] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

3.1.1c

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

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

Current Year Score: 0

There is no publicly available evidence that North Korea has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential, and therefore no considerations for pediatric and other vulnerable populations. There is no publicly available evidence that North Korea has a national public health emergency response plan in place which addresses planning for multiple communicable diseases with pandemic potential. The Ministry of Public Health does not have a publicly available website. The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [1] Although the Public Health Law mandates centralized guidance over public health, the law provides no planning mechanism regarding public health emergency response. Article 46 of the law states: "The central health guiding organ shall establish a system of guidance over public health work properly." [2] The Law on Prevention of Infectious Diseases does not have mention of a national public health emergency response plan. [3] South Korea's North Korean law database contains no other law with relevant provisions. [4] The WHO Country Cooperation Strategy (2014-2019) does not include any mention of a national public health emergency response plan. [5]

[1] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.

[2] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.

[4] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[5] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 7 December 2020.

3.1.1d

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

Yes = 1, No = 0

Current Year Score: 0

2020

WHO Strategic Partnership for IHR and Health Security (SPH)

3.1.2 Private sector involvement in response planning

3.1.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has a specific mechanism(s) for engaging with the private sector to assist with outbreak emergency preparedness and response. The private sector in North Korea only exists as an unofficial economy that augments the official planned economy. [1] There is no publicly available evidence that North Korea has a national public health emergency response plan in place. The Ministry of Public Health does not have a publicly available website. The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [2] Although the Public Health Law mandates centralized guidance over public health, the law provides no planning mechanism regarding public health emergency response. Article 46 of the law states: "The central health guiding organ shall establish a system of guidance over public health work properly." [3] The Law on Prevention of Infectious Diseases does not have mention of a national public health emergency response plan. [4] South Korea's North Korean law database contains no other law with relevant provisions. [5] The Ministry of Public Health does not have a publicly accessible website. There is no mention of a specific mechanism(s) for emergency preparedness and response in the country's WHO Country Cooperation Strategy (2014-2019). [6]

[1] South Korean Ministry of Unification. "North Korea Information Portal".

[<https://nkinfo.unikorea.go.kr/nkp/overview/nkOverview.do>]. Accessed 25 November 2020.

[2] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)".

[http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.

[3] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.

[4] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.

[5] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.

[6] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<http://apps.who.int/iris/bitstream/handle/10665/250298/9789290224716-eng.pdf?sequence=1&isAllowed=y>]. Accessed 25 November 2020.

3.1.3 Non-pharmaceutical interventions planning

3.1.3a

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

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

Current Year Score: 0

Although there is evidence that North Korea is implementing non-pharmaceutical interventions (NPIs) during COVID-19, there is insufficient evidence that there is a policy, plan and/or guidelines in place to implement NPIs during an epidemic or pandemic. The Ministry of Public Health does not have a publicly available website. [1] The Diplomat reported on 6 August 2020: "Throughout the spread of the pandemic [COVID-19], the North Korean government has continuously promoted various behaviors to the public through its various propaganda channels to try and prevent the spread of the virus. Washing hands and wearing masks were some of the most basic things people were told to do." [2] North Korea's state media have consistently emphasized "anti-epidemic work" implemented nationwide during the COVID-19 pandemic. South Korea's Yonhap News Agency reported on 19 November 2020 that North Korea's Rodong Sinmun reiterated the need to "keep a high alert, build a tight blocking wall and further intensify the anti-epidemic work." [3] Citing Rodong Sinmun, Yonhap News Agency reported on 14 April 2020: "North Korea has repeatedly called for absolute obedience of state-enforced preventive guidelines, such as wearing face masks, washing hands, avoiding crowds and other activities that could spread the virus." [4] There is no publicly available evidence that North Korea has a national public health emergency response plan in place. The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [5] Although the Public Health Law mandates centralized guidance over public health, the law provides no planning mechanism regarding public health emergency response. Article 46 of the law states: "The central health guiding organ shall establish a system of guidance over public health work properly." [6] The Law on Prevention of Infectious Diseases does not have mention of a national public health emergency response plan. [7] South Korea's North Korean law database contains no other law with relevant provisions. [8] There is no mention of a specific mechanism(s) for emergency preparedness and response in the country's WHO Country Cooperation Strategy (2014-2019). [9]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 25 November 2020.

[2] The Diplomat. 6 August 2020. "North Korea Steps up Its War on COVID-19". [<https://thediplomat.com/2020/08/north-korea-steps-up-its-war-on-covid-19/>]. Accessed 25 November 2020.

[3] Yonhap News Agency. 19 November 2020. "N.K. paper urges tight antivirus efforts without expecting outside help." [<https://en.yna.co.kr/view/AEN20201119001500325>]. Accessed 25 November 2020.

[4] Yonhap News Agency. 14 April 2020. "N. Korea's paper urges absolute obedience of antivirus guidelines." [<https://en.yna.co.kr/view/AEN20200414001200325>]. Accessed 25 November 2020.

[5] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.

- [6] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.
- [7] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.
- [8] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 7 December 2020.
- [9] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 7 December 2020.

3.2 EXERCISING RESPONSE PLANS

3.2.1 Activating response plans

3.2.1a

Does the country meet one of the following criteria?

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

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

Current Year Score: 0

Although there is evidence that North Korea has launched a response to COVID-19, there is insufficient evidence that it is guided by either a general or COVID-19-specific emergency response plan. There is no evidence that North Korea has completed a national-level biological threat-focused exercise (either with WHO or separately) in the past year. The Ministry of Public Health does not have a publicly available website. [1] North Korea's state media have consistently emphasized "anti-epidemic work" implemented nationwide during the COVID-19 pandemic. South Korea's Yonhap News Agency reported on 19 November 2020 that North Korea's Rodong Sinmun reiterated the need to "keep a high alert, build a tight blocking wall and further intensify the anti-epidemic work." [2] Reuters reported on 15 November 2020 that North Korean leader Kim Jong Un ordered stepped-up emergency anti-epidemic work at a meeting of the Political Bureau of the ruling Workers Party of Korea. [3] There is no publicly available evidence that North Korea has a national public health emergency response plan in place. The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [4] Although the Public Health Law mandates centralized guidance over public health, the law provides no planning mechanism regarding public health emergency response. Article 46 of the law states: "The central health guiding organ shall establish a system of guidance over public health work properly." [5] The Law on Prevention of Infectious Diseases does not have mention of a national public health emergency response plan. [6] South Korea's North Korean law database contains no other law with relevant provisions. [7] There is no mention of a specific mechanism(s) for emergency preparedness and response in the country's WHO Country Cooperation Strategy (2014-2019). [8]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 25 November 2020.

- [2] Yonhap News Agency. 19 November 2020. "N.K. paper urges tight antivirus efforts without expecting outside help." [https://en.yna.co.kr/view/AEN20201119001500325]. Accessed 25 November 2020.
- [3] Reuters. 15 November 2020. "N.Korea's Kim orders tightening of anti-virus measures amid global pandemic -KCNA". [https://www.reuters.com/article/health-coronavirus-northkorea/n-koreas-kim-orders-tightening-of-anti-virus-measures-amid-global-pandemic-kcna-idUSL4N2I10M8]. Accessed 25 November 2020.
- [4] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.
- [5] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.
- [6] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.
- [7] South Korean Ministry of Unification. North Korean Law Database. [https://www.unilaw.go.kr/Index.do]. Accessed 7 December 2020.
- [8] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [https://apps.who.int/iris/handle/10665/250298]. Accessed 7 December 2020.

3.2.1b

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

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

Current Year Score: 0

There is no publicly available evidence that North Korea has undergone an exercise to identify a list of gaps and best practices through either an infectious disease response or a biological-threat focused IHR exercise with the WHO in the past year. There is no evidence of such an exercise on either the WHO After Action Review or Simulation Exercise websites. The Ministry of Public Health does not have an externally accessible website. [1,2] There is no evidence on North Korea's WHO Country Page or Country Office website. [3,4]

- [1] World Health Organization (WHO). "After Action Review". [https://extranet.who.int/sph/after-action-review]. Accessed 25 November 2020.
- [2] WHO. "Simulation Exercise". [https://extranet.who.int/sph/simulation-exercise]. Accessed 25 November 2020.
- [3] WHO. "Countries: Democratic People's Republic of Korea". [http://www.who.int/countries/prk/en/]. Accessed 25 November 2020.
- [4] WHO. Country Office for North Korea. [https://www.who.int/dprkorea/]. Accessed 25 November 2020.

3.2.2 Private sector engagement in exercises

3.2.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that North Korea in the past year has undergone a national-level biological-threat focused exercise that has included private sector representatives. There is no evidence of such an exercise on either the WHO After Action Review or Simulation Exercise websites. The Ministry of Public Health does not have an externally accessible website. [1,2] There is no evidence on North Korea's WHO Country Page or Country Office website. [3,4]

[1] World Health Organization (WHO). "After Action Review". [<https://extranet.who.int/sph/after-action-review>]. Accessed 25 November 2020.

[2] WHO. "Simulation Exercise". [<https://extranet.who.int/sph/simulation-exercise>]. Accessed 25 November 2020.

[3] WHO. "Countries: Democratic People's Republic of Korea". [<http://www.who.int/countries/prk/en/>]. Accessed 25 November 2020.

[4] WHO. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 25 November 2020.

3.3 EMERGENCY RESPONSE OPERATION

3.3.1 Emergency response operation

3.3.1a

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

Yes = 1, No = 0

Current Year Score: 0

There is limited evidence that North Korea has in place an Emergency Operations Center (EOC). The World Health Organization (WHO) reported in August 2019 that the "first DPR Korea National Training on Emergency Medical Teams" was conducted on 26-28 August in Pyongyang and attended by 31 participants, including participants from the "Health Emergency Operations Center." There is insufficient public evidence that this EOC had existed before 2019. [1] The Ministry of Public Health does not have an externally accessible website. There is no mention of an EOC in the country's WHO Country Cooperation Strategy (2014-2019). [2] The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [3] Neither the Public Health Law nor the Law on Prevention of Infectious Diseases contains information on an EOC. [4, 5] During the COVID-19 epidemic, further evidence has emerged confirming the existence of the EOC. North Korean state media frequently mentions "central emergency anti-epidemic" apparatuses operating to contain COVID-19. The Korean Central News Agency (KCNA) reported on 16 November 2020: "The central emergency anti-epidemic units have tightened the anti-epidemic discipline and order, consolidated the material and technical foundations for the anti-epidemic sector, and urged all the sectors and units to maintain high vigilance." [6] KCNA reported on 11 July 2020: "On the 'quarantine directions' issued by the Central Emergency Anti-epidemic Headquarters, foreigners and returners from abroad, their contacts and those with abnormal symptoms like calorification got medical observation and treatment at the restricted areas." [7] There is evidence that North Korea's Red Cross Society (RCS) participates in emergency operations. According to the United Nations Office for the

Coordination of Humanitarian Affairs' Reliefweb update on 21 February 2020, "the DPRK RCS, in close collaboration with the Ministry of Public Health, has been intensifying a variety of preparedness work through a national network of RC volunteers and local branches in order to prevent the spread of COVID-19." The report states: "These activities include health and hygiene promotion, community-based surveillance, psychological first aid, and the supply of PPE kits and referrals through household visits, group gatherings, and individuals." [8]

[1] World Health Organization (WHO). August 2019. "DPR Korea Conducts National Training on Emergency Medical Teams". [https://www.who.int/southeastasia/news/events/detail/2019/08/26/default-calendar/dpr-korea-conducts-national-training-on-emergency-medical-teams]. Accessed 7 December 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [https://apps.who.int/iris/handle/10665/250298]. Accessed 7 December 2020.

[3] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.

[4] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.

[5] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.

[6] Korean Central News Agency (KCNA). 16 November 2020. "Highest Anti-epidemic Vigilance Maintained in DPRK". [https://kcnawatch.org/newstream/1605499533-158032846/Highest-Anti-epidemic-Vigilance-Maintained-in-DPRK/]. Accessed 25 November 2020.

[7] KCNA. 11 July 2020. "State Emergency Anti-Epidemic Steps Taken in DPRK". [https://kcnawatch.org/newstream/1594471631-251192939/state-emergency-anti-epidemic-steps-taken-in-dprk/]. Accessed 25 November 2020.

[8] United Nations Office for the Coordination of Humanitarian Affairs. 21 February 2020. "Novel Coronavirus (COVID-19) Outbreak Operations update #3". [https://reliefweb.int/report/china/novel-coronavirus-covid-19-outbreak-operations-update-3-emergency-appeal-n-mdr00005-21]. Accessed 7 December 2020.

3.3.1b

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

Yes = 1, No = 0

Current Year Score: 0

There is insufficient evidence that North Korea requires or conducts an annual drill for an emergency operations center. The Ministry of Public Health does not have an externally accessible website. The World Health Organization reported in August 2019 that the "first DPR Korea National Training on Emergency Medical Teams" was conducted on 26-28 August in Pyongyang with the aim to "provide an opportunity for key stakeholders to engage collectively and further strengthen national and sub-national capacities in dealing with emergencies that require a national and international Emergency Medical Team (EMT) response." The report states: "Thirty-one participants from the Ministry of Public Health, the Health Emergency Operations Centre, the National Center for Communicable Diseases, Central Hygienic and Anti-Epidemic Institute, the emergency departments of key tertiary level hospitals and key University hospitals across the country attended the training." No further details are available about this EOC. [1] There is no mention of an EOC in the country's WHO Country Cooperation

Strategy (2014-2019). [2] The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [3] The Public Health Law or the Law on Prevention of Infectious Diseases contains information on an EOC. [4, 5] There is evidence that the Red Cross Society (RCS) of North Korea conducts training. The United Nations Office for the Coordination of Humanitarian Affairs' Reliefweb update on 21 February 2020 states that "more Red Cross volunteers have been trained on specific COVID-19 awareness and skills, focusing on symptoms, simple preventive measures, psychological first aid and behavioral change." [6]

[1] WHO. August 2019. "DPR Korea Conducts National Training on Emergency Medical Teams".

[<https://www.who.int/southeastasia/news/events/detail/2019/08/26/default-calendar/dpr-korea-conducts-national-training-on-emergency-medical-teams>]. Accessed 7 December 2020.

[2] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 7 December 2020.

[3] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.

[4] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.

[5] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.

[6] United Nations Office for the Coordination of Humanitarian Affairs. 21 February 2020. "Novel Coronavirus (COVID-19) Outbreak Operations update #3". [<https://reliefweb.int/report/china/novel-coronavirus-covid-19-outbreak-operations-update-3-emergency-appeal-n-mdr00005-21>]. Accessed 7 December 2020.

3.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

There is insufficient evidence that North Korea has an official Emergency Operations Centre (EOC) or that the country has conducted within the last year, a coordinated emergency response or emergency response exercise activated within 120 minutes of the identification of the public health emergency/scenario. The Ministry of Public Health does not have an externally accessible website. The World Health Organization reported in August 2019 that the "first DPR Korea National Training on Emergency Medical Teams" was conducted on 26-28 August in Pyongyang with the aim to "provide an opportunity for key stakeholders to engage collectively and further strengthen national and sub-national capacities in dealing with emergencies that require a national and international Emergency Medical Team (EMT) response." The report states: "Thirty-one participants from the Ministry of Public Health, the Health Emergency Operations Centre, the National Center for Communicable Diseases, Central Hygienic and Anti-Epidemic Institute, the emergency departments of key tertiary level hospitals and key University hospitals across the country attended the training." There are no further details available about this EOC. [1] There is no mention of an EOC in the country's WHO Country Cooperation Strategy (2014-2019). [2] The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" which

addresses communicable disease prevention and control as one of the strategic areas for 2016-20 with no details about a national public health emergency response, was released in 2017. [3] The Public Health Law or the Law on Prevention of Infectious Diseases contains information on an EOC. [4, 5] There is evidence that the Red Cross Society (RCS) of North Korea conducts training. The United Nations Office for the Coordination of Humanitarian Affairs' Reliefweb update on 21 February 2020 states that "more Red Cross volunteers have been trained on specific COVID-19 awareness and skills, focusing on symptoms, simple preventive measures, psychological first aid and behavioral change." [6]

[1] WHO. August 2019. "DPR Korea Conducts National Training on Emergency Medical Teams".

[<https://www.who.int/southeastasia/news/events/detail/2019/08/26/default-calendar/dpr-korea-conducts-national-training-on-emergency-medical-teams>]. Accessed 7 December 2020.

[2] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy: Democratic People's Republic of Korea (2014-2019)". [<https://apps.who.int/iris/handle/10665/250298>]. Accessed 7 December 2020.

[3] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 25 November 2020.

[4] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 25 November 2020.

[5] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 7 December 2020.

[6] United Nations Office for the Coordination of Humanitarian Affairs. 21 February 2020. "Novel Coronavirus (COVID-19) Outbreak Operations update #3". [<https://reliefweb.int/report/china/novel-coronavirus-covid-19-outbreak-operations-update-3-emergency-appeal-n-mdr00005-21>]. Accessed 7 December 2020.

3.4 LINKING PUBLIC HEALTH AND SECURITY AUTHORITIES

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

3.4.1a

Does the country meet one of the following criteria?

- Is there public evidence that public health and national security authorities have carried out an exercise to respond to a potential deliberate biological event (i.e., bioterrorism attack)?

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

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

Current Year Score: 0

There is no 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). There is no public evidence that North Korea has publicly available standard operating procedures, guidelines, MOUs or other agreements between the public health and security authorities to respond to a potential deliberate biological event (i.e. bioterrorism attack). The Ministry of Public Health does not have an externally accessible website. The World Health Organization's North Korea Country Office webpage does not have any relevant information, nor does the country's WHO Country Cooperation Strategy (2014-2019). [1,2] Neither the

Public Health Law nor the Law on Prevention of Infectious Diseases have relevant provisions. [3, 4] South Korea's North Korean law database contains no other law with relevant provisions. [5]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 27 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 27 November 2020.

[3] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[4] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[5] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 8 December 2020.

3.5 RISK COMMUNICATIONS

3.5.1 Public communication

3.5.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence that North Korea has a strategy (or other legislation, regulation or strategy document used to guide national public health response) that outlines how messages will reach populations and sectors with different communications needs. North Korea does not have an externally accessible government website for the Ministry of Public Health. The WHO North Korea Country Office webpage does not have any relevant information, nor is there any relevant information in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Korean Central News Agency (KCNA) is the official news outlet controlled by the state. There is no evidence that establishes the KCNA's role in public health emergency communications. [3,4] Neither the Public Health Law nor the Law on Prevention of Infectious Diseases have relevant provisions. [5, 6] South Korea's North Korean law database contains no other law with relevant provisions. [7]

[1] World Health Organization. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 27 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 27 November 2020.

[3] Media Bias Fact Check. "Korean Central News Agency". [<https://mediabiasfactcheck.com/korean-central-news-agency/>]. Accessed 27 November 2020.

[4] Korean Central News Agency. [<https://kcnawatch.org/article/163/>]. Accessed 27 November 2020.

[5] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

2020.

[6] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[7] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 8 December 2020.

3.5.1 Risk communication planning

3.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence of a risk communication plan that is specifically intended for use during a public health emergency. The Ministry of Public Health has no externally accessible website. The Ministry of Public Health's "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)" lists "rapid notification e-system" and "national emergency health communication system" development among proposed activities for the plan period. [1] The WHO North Korea Country Office webpage does not have any relevant information, nor is there any relevant information in the country's WHO Country Cooperation Strategy (2014-2019). [2,3] Neither the Public Health Law nor the Law on Prevention of Infectious Diseases have relevant provisions. [4, 5] South Korea's North Korean law database contains no other law with relevant provisions. [6]

[1] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 27 November 2020.

[2] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 27 November 2020.

[3] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 27 November 2020.

[4] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[5] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[6] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 8 December 2020.

3.5.1c

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

Yes = 1, No = 0

Current Year Score: 0

There is no evidence that any risk communication plan (or other legislation, regulation or strategy document used to guide national public health response) in North Korea designates a specific position within the government to serve as the primary spokesperson to the public during a public health emergency. There is no publicly available evidence of a risk communication plan that is specifically intended for use during a public health emergency. The Ministry of Public Health has no externally accessible website. [1, 2] North Korean state media frequently mentions "central emergency anti-epidemic" apparatuses operating to contain COVID-19. The Korean Central News Agency (KCNA) reported on 16 November 2020: "The central emergency anti-epidemic units have tightened the anti-epidemic discipline and order, consolidated the material and technical foundations for the anti-epidemic sector, and urged all the sectors and units to maintain high vigilance." [3] Neither the Public Health Law nor the Law on Prevention of Infectious Diseases have relevant provisions. [4, 5] South Korea's North Korean law database contains no other law with relevant provisions. [6]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 27 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 27 November 2020.

[3] Korean Central News Agency (KCNA). 16 November 2020. "Highest Anti-epidemic Vigilance Maintained in DPRK". [<https://kcnawatch.org/newstream/1605499533-158032846/Highest-Anti-epidemic-Vigilance-Maintained-in-DPRK/>]. Accessed 27 November 2020.

[4] Supreme People's Assembly. 3 April 2012. "Public Health Law (인민보건법) of 3 April 1980".

[https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[5] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 8 December 2020.

[6] South Korean Ministry of Unification. North Korean Law Database. [<https://www.unilaw.go.kr/Index.do>]. Accessed 8 December 2020.

3.5.2 Public communication

3.5.2a

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

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

Current Year Score: 0

There is no evidence that in the past year, 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. There is insufficient evidence that the government utilizes media platforms to inform the public about public health emergencies. North Korea does not have an externally accessible government website for the Ministry of Public Health. The WHO North Korea Country Office webpage does not have any relevant information, nor is there any relevant information in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Korean Central News Agency (KCNA) is the official news outlet controlled by the state. There is no evidence that establishes the KCNA's role in public health emergency communications. [3] The status of internet usage in North Korea is not clear [4], although the state media operate various media outlets on the internet for external audiences, including Twitter, Facebook. [5, 6, 7] The state-run Korean Central Television's broadcast content delivers the government's messages to the public. [8] However, it is impossible to draw a distinction between propaganda and factual information. [5, 6, 7, 8]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 27 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 27 November 2020.

[3] Korean Central News Agency (KCNA). 16 November 2020. "Highest Anti-epidemic Vigilance Maintained in DPRK". [<https://kcnawatch.org/newstream/1605499533-158032846/Highest-Anti-epidemic-Vigilance-Maintained-in-DPRK/>]. Accessed 27 November 2020.

[4] Recorded Future. 9 February 2020. "How North Korea Revolutionized the Internet as a Tool for Rogue Regimes". [<https://www.recordedfuture.com/north-korea-internet-tool/>]. Accessed 27 November 2020.

[5] Twitter. "KCNA". [https://twitter.com/kcna_koreannews?lang=en]. Accessed 27 November 2020.

[6] Facebook. "Korean Central News Agency". [<https://www.facebook.com/KCNA.NEWS/>]. Accessed 27 November 2020.

[7] YouTube. "KCNA Uploader". [<https://www.youtube.com/channel/UCUuFFVgw3WcDIPZeMukjvWg>]. Accessed 27 November 2020.

[8] Korean Central Television. [<https://kcnawatch.org/korea-central-tv-livestream/>]. Accessed 8 December 2020.

3.5.2b

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

No = 1, Yes = 0

Current Year Score: 1

There is insufficient evidence that senior leaders (president or ministers) in North Korea have shared misinformation or disinformation on infectious diseases in the past two years. North Korean leader Kim Jong Un, chairman of the State Affairs Commission, has repeatedly and publicly denied the presence of COVID-19 cases in North Korea. [1, 2] The World Health Organization (WHO) tracking worldwide COVID-19 outbreaks has not published any data supporting or not supporting the North Korean leader's claim. The WHO's case tally has shown no confirmed case in North Korea. [3] North Korea's state media delivers messages from the leadership to the public. However, it is impossible to draw a distinction between state propaganda and factual information. [4, 5, 6, 7] On 9 December 2020 Kim Yo Jong, sister of Kim Jong Un, issued a rebuttal against South Korean Minister of Foreign Affairs Kang Kyung-wha's remark casting doubt on North Korea's zero COVID-19 case claims. [8]

[1] Newsweek. 10 October 2020. "Kim Jong Un Says There Are No Covid Cases in North Korea, Hopes Pyongyang Can 'Hold Hands Again' with Seoul". [<https://www.newsweek.com/north-korea-military-parade-kim-jong-un-weapons-icbm-1538038>]. Accessed 27 November 2020.

- [2] NK News. 10 October 2020. "Kim Jong Un thanks North Koreans for 'zero' COVID-19 cases in the country." [https://www.nknews.org/2020/10/north-korea-projects-covid-19-confidence-as-parade-attendees-forego-masks/]. Accessed 27 November 2020.
- [3] World Health Organization. 22 November 2020. "COVID-19 Weekly Epidemiological Update". [https://www.who.int/publications/m/item/weekly-epidemiological-update---24-november-2020]. Accessed 27 November 2020.
- [4] Twitter. "KCNA". [https://twitter.com/kcna_koreannews?lang=en]. Accessed 8 December 2020.
- [5] Facebook. "Korean Central News Agency". [https://www.facebook.com/KCNA.NEWS/]. Accessed 8 December 2020.
- [6] YouTube. "KCNA Uploader". [https://www.youtube.com/channel/UCUuFFVgw3WcDIPZeMukjvWg]. Accessed 8 December 2020.
- [7] Korean Central Television. [https://kcnawatch.org/korea-central-tv-livestream/]. Accessed 8 December 2020.
- [8] The Diplomat. 9 December 2020. "North Korea Takes Offense at Seoul Foreign Minister's COVID-19 Remarks". [https://thediplomat.com/2020/12/north-korea-takes-offense-at-seoul-foreign-ministers-covid-19-remarks/]. Accessed 13 December 2020.

3.6 ACCESS TO COMMUNICATIONS INFRASTRUCTURE

3.6.1 Internet users

3.6.1a

Percentage of households with Internet

Input number

Current Year Score: 0

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: 14.98

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: -

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: -

2019

Gallup; Economist Impact calculation

3.7 TRADE AND TRAVEL RESTRICTIONS

3.7.1 Trade restrictions

3.7.1a

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

Yes = 0, No = 1

Current Year Score: 0

There is evidence that in the past year, North Korea has 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. The Ministry of Public Health, the Ministry of Agriculture, or the Ministry of Foreign Affairs has no official website accessible externally. According to North Korean state media, North Korean leader Kim Jong Un has imposed on restrictions on outside aid during the pandemic. The Korean Central News Agency reported on 14 August 2020 Kim saying: "The situation, in which the spread of the worldwide malignant virus has become worse, requires us not to allow any outside aid for the flood damage but shut the border tighter and carry out strict anti-epidemic work." [1] South Korea's Ministry of Unification approved multiple requests from the private sector to send shipments of personal protective equipment (PPE) to North Korea between March and August 2020. However, no delivery has been made because of restrictions placed by North Korea. [2]

[1] The Associated Press. 13 August 2020. "North Korea lifts lockdown in city, rejects flood, virus aid".

[<https://apnews.com/article/virus-outbreak-ap-top-news-seoul-pyongyang-international-news-c1f46e5e7344cb2b917e750d20c4c815>]. Accessed 27 November 2020.

[2] Seoul Economic Daily. 22 October 2020. "No delivery made on approved COVID-19 PPE aid shipments to North Korea".

[<https://www.sedaily.com/NewsView/1Z98B8GX6E>]. Accessed 27 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: 0

There is evidence that North Korea has issued a restriction, without international/bilateral support, on the export/import of non-medical goods (e.g. food, textiles, etc) due to an infectious disease outbreak in the past year. The Ministry of Public Health, the Ministry of Agriculture, or the Ministry of Foreign Affairs has no official website accessible externally. According to North Korean state media, North Korean leader Kim Jong Un has imposed on restrictions on outside aid during the pandemic. The Korean Central News Agency reported on 14 August 2020 Kim saying: "The situation, in which the spread of the worldwide malignant virus has become worse, requires us not to allow any outside aid for the flood damage but shut the border tighter and carry out strict anti-epidemic work." [1] The National Committee on North Korea, a US-based nonprofit organization, reported on 15 October 2020: "Humanitarian aid and funding have decreased due to an increase in sanctions and the general impoverishment has risen due to loss of trade. Moreover, the situation has been aggravated by the strategy of economic autarchy and self-imposed Covid-19 prevention policies which ultimately brought Pyongyang to reject humanitarian assistance from the outside." [2] South Korea's Ministry of Unification, humanitarian assistance from the private sector to North Korea has fallen to a fraction of the level of 2019 when W17bn (US\$15.4m) worth of aid from private organizations made its way to North Korea. [3]

[1] The Associated Press. 13 August 2020. "North Korea lifts lockdown in city, rejects flood, virus aid".

[<https://apnews.com/article/virus-outbreak-ap-top-news-seoul-pyongyang-international-news-c1f46e5e7344cb2b917e750d20c4c815>]. Accessed 27 November 2020.

[2] National Committee on North Korea. 15 October 2020. "Human Security and the Humanitarian Situation in North Korea".

[<https://www.ncnk.org/event-calendar/webcast-human-security-and-humanitarian-situation-north-korea>]. Accessed 27 November 2020.

[3] South Korea's Ministry of Unification. "Private sector aid". [<https://hairo.unikorea.go.kr/stat/StatInternalCivil.do>].

Accessed 27 November 2020.

3.7.2 Travel restrictions

3.7.2a

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

Yes = 0, No = 1

Current Year Score: 0

There is evidence that North Korea has implemented a ban, without international/bilateral support, on travelers arriving from a specific country or countries due to an infectious disease outbreak in the past year. The Ministry of Public Health, the Ministry of Agriculture, or the Ministry of Foreign Affairs has no official website accessible externally. In January 2020 the ruling Workers Party of Korea set up quarantines at the country's borders, ports, and airports and closed its borders to all international tourism. [1, 2]

[1] NK News. 27 January 2020. "North Korea taking 'high-intensity' steps to fight coronavirus spread: Rodong".

[<https://www.nknews.org/2020/01/north-korea-taking-high-intensity-steps-to-fight-coronavirus-spread-rodong/>]. Accessed 28 November 2020.

[2] The Washington Post. 21 January 2020. "North Korea bans foreign tourists as coronavirus spreads".
[<https://www.washingtonpost.com/world/2020/01/21/north-korea-bans-foreign-tourists-coronavirus-spreads/>]. Accessed 28 November 2020.

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

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

4.1.1 Available human resources for the broader healthcare system

4.1.1a

Doctors per 100,000 people

Input number

Current Year Score: 368.34

2017

WHO; national sources

4.1.1b

Nurses and midwives per 100,000 people

Input number

Current Year Score: 444.89

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

North Korea does not have a public 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. In 2014 the Ministry of Public Health (MOPH) adopted a set of indicators for workforce development toward the 2020 target year. These indicators have

not been updated since 2014. The 2014 numbers include four doctors per 1,000 population in 2020, increased from 3.5 in 2014. The MOPH does not have an externally accessible website.[1] According to the WHO Country Cooperation Strategy (2014-2019), North Korea had 87,780 physicians, 93,400 nurses, 7,368 midwives, 9,463 pharmacists across the country in 2014. [2] According to a South Korean study released by the Korea Institute for Health and Social Affairs in December 2018, North Korea is believed to have 12 medical schools to train doctors nationwide. There are other educational institutions training nurses and pharmacists. [3]

[1] World Health Organization (WHO). "National Strategic Plan on Antimicrobial Resistance (2018-2020)".

[<http://origin.searo.who.int/dprkorea/antimicrobial-resistance/dprk-national-strategic-plan-on-amr/en/>] Accessed 28 November 2020.

[2] WHO. "WHO Country Cooperation Strategy (2014-2019)".

[http://www.searo.who.int/dprkorea/documents/ccs_dprk_2014-2019.pdf]. Accessed 28 November 2020.

[3] Korea Institute for Health and Social Affairs. December 2018. "A Plan for North-South Cooperation in Health and Welfare".

[<http://repository.kihasa.re.kr/handle/201002/32627>]. Accessed 28 November 2020.

4.1.2 Facilities capacity

4.1.2a

Hospital beds per 100,000 people

Input number

Current Year Score: 1320

2012

WHO/World Bank; national sources

4.1.2b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has the capacity to isolate patients with highly communicable diseases in a biocontainment patient care unit and/or patient isolation facility located within the country. The Ministry of Public Health does not have an externally accessible website, nor is there any web presence of the 2-3 biggest hospitals in the country. The World Health Organization (WHO)'s Country Office for North Korea does not have information on any such capacity in North Korea, nor is there any mention of biocontainment or patient isolation facilities in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Law on Prevention of Infectious Diseases sets out principles for the treatment of infectious disease patient in isolation without details. Article 3 of the Law on Prevention of Infectious Diseases mentions isolation as a key principle for infectious disease prevention. It requires the state to "put great effort into detecting and isolating sources of infection." Article 16 of the Law on Prevention of Infectious Diseases simply states that "the ad-hoc State Emergency Anti-Epidemic Commission should implement measures to "isolate travelers from other countries in a designated location over a set period of time and take medical surveillance measures" in the event of a worldwide infectious disease outbreak. [3] South Korea's Yonhap News Agency reported on 24 February 2020 that the North Korean authorities

quarantined about 380 foreigners in the country for 30 days to prevent COVID-19 from entering the country. [4]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[4] Yonhap News Agency. 24 February 2020. "N. Korea quarantines about 380 foreigners as part of preventive efforts against virus". [<https://en.yna.co.kr/view/AEN20200224000700325>]. 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

There is no publicly available evidence that North Korea has demonstrated capacity to expand isolation capacity in response to an infectious disease outbreak in the past two years or has developed, updated or tested a plan to expand isolation capacity in response to an infectious disease outbreak in the past two years. The Ministry of Public Health does not have an externally accessible website, nor is there any web presence of the 2-3 biggest hospitals in the country. The World Health Organization (WHO)'s Country Office for North Korea does not have information on any such capacity in North Korea, nor is there any mention of biocontainment or patient isolation facilities in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Law on Prevention of Infectious Diseases sets out principles for the treatment of infectious disease patient in isolation without details. Article 3 of the Law on Prevention of Infectious Diseases mentions isolation as a key principle for infectious disease prevention. It requires the state to "put great effort into detecting and isolating sources of infection." Article 16 of the Law on Prevention of Infectious Diseases simply states that "the ad-hoc State Emergency Anti-Epidemic Commission should implement measures to "isolate travelers from other countries in a designated location over a set period of time and take medical surveillance measures" in the event of a worldwide infectious disease outbreak. [3] South Korea's Yonhap News Agency reported on 24 February 2020 that the North Korean authorities quarantined about 380 foreigners in the country for 30 days to prevent COVID-19 from entering the country. [4] However, there is no public information about if they have been isolated in existing facilities or if the country's isolation capacity has been expanded.

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[4] Yonhap News Agency. 24 February 2020. "N. Korea quarantines about 380 foreigners as part of preventive efforts against

virus". [<https://en.yna.co.kr/view/AEN20200224000700325>]. Accessed 28 November 2020.

4.2 SUPPLY CHAIN FOR HEALTH SYSTEM AND HEALTHCARE WORKERS

4.2.1 Routine health care and laboratory system supply

4.2.1a

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

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

Current Year Score: 0

There is insufficient public evidence that a national procurement protocol is in place that can be utilized by the Ministries of Health and Agriculture for the acquisition of laboratory needs (such as equipment, reagents and media), including medical supplies. The WHO Country Cooperation Strategy for the Democratic People's Republic of Korea (2014-2019) states that in North Korea "public sector procurement of health services is undertaken centrally by the Ministry of Public Health" through a "national logistic management system" that comprises the Central Medical Warehouse at the national level and provincial and county medical warehouses. However, the Country Cooperation Strategy provides no additional detail on the protocol itself, nor whether the Ministry of Agriculture can utilize this system. North Korea does not have a publicly accessible government website for the Ministry of Public Health or the Ministry of Agriculture. [1] According to a study released by the Korea Institute for Health and Social Affairs in December 2018, there are severe shortages affecting all healthcare resources in North Korea with patients resorting to the underground market for medicines. [2] Even North Korea's Law on Pharmaceutical Management stresses the need to recycle. Article 32 states that "pharmaceuticals management organs and relevant agencies, enterprises, and organizations must manage pharmaceuticals storage containers and increase their recovery ratio." [3]

[1] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[2] Korea Institute for Health and Social Affairs. December 2018. "A Plan for North-South Cooperation in Health and Welfare". [<http://repository.kihasa.re.kr/handle/201002/32627>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbsSubId=016]. Accessed 28 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: 0

There is no evidence that North Korea maintains a stockpile of medical supplies (e.g. MCMs, medicines, vaccines, medical equipment, PPE) for national use during a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health or the Ministry of Defense. The WHO Country Cooperation Strategy (2014-2019) for North Korea notes that North Korea's national logistic management system comprises a Central Medical Warehouse at the national level as well as provincial and county medical warehouses, but it does not specify whether those warehouses stockpile medical countermeasures. [1] There is no evidence of such a stockpile on the WHO Country Office webpage for North Korea. [2] According to a study published by the Korea Institute for Health and Social Affairs in December 2018, North Korea prioritizes the stockpiling of pharmaceuticals for the military and releases pharmaceuticals approaching the expiry date into the civilian sector. The report notes that North Korea experiences severe shortages of medical countermeasures supplied through its official distribution system. Trade statistics from the United Nations show that North Korea imported US\$104m worth of pharmaceuticals and medical supplies, 68.2% of which came from China, between 2011 and 2015. [3] The Law on Prevention of Infectious Diseases simply mentions the need to "increase investment in the infectious disease prevention sector, modernize technology means, and strengthen the work of meeting physical needs" and the requirement for healthcare providers to "maintain storage facilities and transportation means" for preventive drugs. The Law on Pharmaceuticals Management has no mention of stockpiling during a public health emergency. [4, 5] There have been reports on international shipments of COVID-19 testing kits to North Korea. The Ministry of Foreign Affairs of the Russian Federation announced on 26 February 2020 that "Russia has donated 1,500 coronavirus diagnostic test kits to Pyongyang at the request of the Democratic People's Republic of Korea." China's Ministry of Foreign Affairs confirmed on 27 April 2020 that China sent coronavirus testing kits to North Korea. South Korea's Gyeonggi Province and a non-governmental organization jointly delivered COVID-19 test kits and other items to North Korea through the China-North Korea border on 13 August 2020. [6, 7, 8]

[1] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy (2014-2019)".

[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[2] WHO. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[3] Korea Institute for Health and Social Affairs. December 2018. "A Plan for North-South Cooperation in Health and Welfare".

[<http://repository.kihasa.re.kr/handle/201002/32627>]. Accessed 28 November 2020.

[4] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbsSubId=016]. Accessed 28 November 2020.

[5] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbsSubId=016]. Accessed 28 November 2020.

[6] Ministry of Foreign Affairs of the Russian Federation. 26 February 2020. "Press release on the donation of Russian coronavirus diagnostic test kits to North Korea". [https://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/4059498]. Accessed 28 November 2020.

[7] CGTN. 27 April 2020. "China sends coronavirus test kits to the DPRK for prevention". [<https://news.cgtn.com/news/2020-04-27/China-sends-coronavirus-test-kits-to-the-DPRK-for-prevention-Q1XxTL5nkA/index.html>]. Accessed 28 November 2020.

[8] NK News. 21 August 2020. "COVID-19 test kits sent by private South Korean group arrive in North Korea".

[<https://www.nknews.org/2020/08/covid-19-test-kits-sent-by-private-south-korean-group-arrive-in-north-korea/>]. Accessed 28 November 2020.

4.2.2b

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

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

Current Year Score: 0

There is no evidence that North Korea has a stockpile of laboratory supplies (e.g. reagents, media) for national use during a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health or the Ministry of Defense. The Law on Prevention of Infectious Diseases simply mentions the need to "increase investment in the infectious disease prevention sector, modernize technology means, and strengthen the work of meeting physical needs" and the requirement for healthcare providers to "maintain storage facilities and transportation means" for preventive drugs. The Law on Pharmaceuticals Management has no mention of stockpiling during a public health emergency. [1, 2] During the COVID-19 outbreak, there has been evidence of international shipments of COVID-19 testing kits sent to North Korea. The Ministry of Foreign Affairs of the Russian Federation announced on 26 February 2020 that "Russia has donated 1,500 coronavirus diagnostic test kits to Pyongyang at the request of the Democratic People's Republic of Korea." China's Ministry of Foreign Affairs confirmed on 27 April 2020 that China sent coronavirus testing kits to North Korea. South Korea's Gyeonggi Province and a non-governmental organization jointly delivered COVID-19 test kits and other items to North Korea through the China-North Korea border on 13 August 2020. [3, 4, 5]

[1] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[2] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[3] Ministry of Foreign Affairs of the Russian Federation. 26 February 2020. "Press release on the donation of Russian coronavirus diagnostic test kits to North Korea". [https://www.mid.ru/en/foreign_policy/news/-/asset_publisher/cKNonkJE02Bw/content/id/4059498]. Accessed 28 November 2020.

[4] CGTN. 27 April 2020. "China sends coronavirus test kits to the DPRK for prevention". [<https://news.cgtn.com/news/2020-04-27/China-sends-coronavirus-test-kits-to-the-DPRK-for-prevention-Q1XxTL5nkA/index.html>]. Accessed 28 November 2020.

[5] NK News. 21 August 2020. "COVID-19 test kits sent by private South Korean group arrive in North Korea". [<https://www.nknews.org/2020/08/covid-19-test-kits-sent-by-private-south-korean-group-arrive-in-north-korea/>]. Accessed 28 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 North Korea conducts or requires an annual review of the national stockpile to ensure the supply is sufficient for a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health or the Ministry of Defense. The WHO Country Cooperation Strategy (2014-2019) for North Korea notes that North Korea's national logistic management system comprises a Central Medical Warehouse at the national level as well as provincial and county medical warehouses, but it does not specify whether those warehouses stockpile medical countermeasures. [1] There is no evidence of such a stockpile in existence on the WHO Country Office webpage for North Korea. [2]

[1] World Health Organization (WHO). 2016. "WHO Country Cooperation Strategy (2014-2019)".
[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[2] WHO. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

4.2.3 Manufacturing and procurement for emergencies

4.2.3a

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no evidence that North Korea 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. There is also no evidence of a plan/mechanism to procure medical supplies (e.g. MCMs, medicines, vaccines, equipment, PPE) for national use during a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health or the Ministry of Defense. The Law on Prevention of Infectious Diseases simply mentions the need to "increase investment in the infectious disease prevention sector, modernize technology means, and strengthen the work of meeting physical needs." [1] The United Nations Security Council provides sanctions waivers on humanitarian grounds. As of 29 October 2020, the DPRK Sanctions Committee has approved a total of 75 humanitarian exemption requests, including COVID-19 healthcare aid requests from the World Health Organization, UNICEF, the Eugene Bell Foundation, South Korea, and Doctors Without Borders. [2] North Korean state media have reported on domestic manufacturing capacity being diverted to the production of medical supplies. According to BBC, "doubts have also been raised about North Korea's ability to test for the virus - even though state media have reported on factories producing test kits, facial masks and disinfectants." [3] The Law on Prevention of Infectious Diseases simply mentions the need to "increase investment in the infectious disease prevention sector, modernize technology means, and strengthen the work of meeting physical needs." [4] According to a study published by the Korea Institute for Health and Social Affairs in December 2018, North Korea experiences severe shortages of medical countermeasures supplied through its official distribution system. North Korea has five major pharmaceuticals manufacturing facilities with output limited to basic drugs (such as penicillin and aspirin) and health supplements. North Korea is dependent on imports, mostly from China, to meet its needs for medical countermeasures. Citing trade statistics from the United Nations, the report notes that North Korea imported US\$104m worth of pharmaceuticals and medical supplies, 68.2% of which came from China, between 2011 and 2015. [5]

[1] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[2] United Nations Security Council. 29 October 2020. "Humanitarian Exemption Requests". [<https://www.un.org/securitycouncil/sanctions/1718/exemptions-measures/humanitarian-exemption-requests>]. Accessed 28 November 2020.

[3] BBC. 26 February 2020. "Coronavirus: Could North Korea handle a Covid-19 outbreak?" [<https://www.bbc.com/news/world-asia-51624624>]. Accessed 28 November 2020.

[4] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November

1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[5] Korea Institute for Health and Social Affairs. December 2018. "A Plan for North-South Cooperation in Health and Welfare". [<http://repository.kihasa.re.kr/handle/201002/32627>]. Accessed 28 November 2020.

4.2.3b

Does the country meet one of the following criteria?

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

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

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

Current Year Score: 0

There is no 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. There evidence of a plan/mechanism to procure laboratory supplies (e.g. reagents, media) for national use during a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health or the Ministry of Defense. The Law on Prevention of Infectious Diseases simply mentions the need to "increase investment in the infectious disease prevention sector, modernize technology means, and strengthen the work of meeting physical needs." [1] The United Nations Security Council provides sanctions waivers on humanitarian grounds. As of 29 October 2020, the DPRK Sanctions Committee has approved a total of 75 humanitarian exemption requests, including COVID-19 healthcare aid requests from the World Health Organization, UNICEF, the Eugene Bell Foundation, South Korea, and Doctors Without Borders. The approved WHO requests involve deliveries of laboratory equipment. An approved exemption, effective from 1 June 2020 until 6 May 2021, allows the WHO to transfer "items to the DPRK pertaining to humanitarian activities WHO intends to undertake, in particular laboratory equipment for vaccine preventable diseases, aimed at enhancing the diagnostics capacity in the country, thus ensuring timely treatment of patients and prevention of the spread of vaccine preventable diseases among its vulnerable population, which would contribute to reducing child mortality in the country." Another approved exemption, effective from 5 June 2020 until 5 December 2020, allows the WHO to import "items to the DPRK pertaining to humanitarian activities WHO intends to undertake, including the import of laboratory equipment for vaccine preventable diseases, critical care equipment, emergency primary health care equipment, installation of a blood bag manufacturing plant, and diagnostic equipment for multidrug-resistant tuberculosis." [2]

[1] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[2] United Nations Security Council. 29 October 2020. "Humanitarian Exemption Requests". [<https://www.un.org/securitycouncil/sanctions/1718/exemptions-measures/humanitarian-exemption-requests>]. Accessed 28 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 publicly available evidence that North Korea has a plan, program, or guidelines in place for dispensing medical countermeasures for national use during a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health, the Ministry of People's Defense, or the Ministry of Public Security. The World Health Organization's Country Office for North Korea does not have information on any such capacity in North Korea, nor is here any mention of dispensing medical countermeasures for national use during a public health emergency in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Law on Prevention of Infectious Diseases only addresses the need for mass "preventive inoculation" to be administered by area medical institutions. [3]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

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

4.3.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no available evidence that a public plan is in place in North Korea to receive health personnel from other countries to respond to a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health, the Ministry of People's Defense, or the Ministry of Public Security. The World Health Organization's Country Office for North Korea does not have information on any such capacity in North Korea. [1] According to the WHO Country Cooperation Strategy (2014-2019), North Korea has received humanitarian and development assistance from the international community including UN-organized programs. [2] None of the United Nations Security Council's approved humanitarian exemptions involved health personnel from other countries working in North Korea. [3]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>].

Accessed 28 November 2020.

[3] United Nations Security Council. 29 October 2020. "Humanitarian Exemption Requests".

[<https://www.un.org/securitycouncil/sanctions/1718/exemptions-measures/humanitarian-exemption-requests>]. Accessed 28 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: 99.5

2017

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: -

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: 0

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 publicly available evidence that the government issued legislation, a policy or a public statement committing to provide prioritized health care services to healthcare workers who become sick as a result of responding to a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health. There are no national planning documents or emergency planning documents available. The WHO Country Office for North Korea webpage does not have information on the existence of any such arrangement in North Korea, nor if there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Law on Prevention of Infectious Diseases does not have relevant provisions. [3]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbSubId=016]. Accessed 8 December 2020.

4.5 COMMUNICATIONS WITH HEALTHCARE WORKERS DURING A PUBLIC HEALTH EMERGENCY

4.5.1 Communication with healthcare workers

4.5.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that there exists a system in place for public health officials and healthcare workers to communicate during a public health emergency. North Korea has no externally accessible government website for the Ministry of Public Health. The World Health Organization (WHO) Country Office for North Korea does not have information on the existence of any such arrangement in North Korea, nor if there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Law on Prevention of Infectious Diseases mandates centralized guidance and

top-down control in times of public health emergency. There is no specific mention of communication between public health officials and healthcare workers. The Law on Prevention of Infectious Diseases also requires the formation of central and local government anti-epidemic committees to handle outbreaks. [3] There appears to be some channel of communication for public health officials and healthcare workers during the pandemic. According to 38 North, there is "a notable breadth and volume of reporting in North Korea's domestic media about COVID-19. Rodong Sinmun, the Workers' Party paper aimed at a domestic audience, has carried regular (and surprisingly detailed) briefs on coordination of "anti-epidemic" efforts in different provinces, including the mobilization of volunteers and "medical workers" to travel to factories and farms to educate people about the disease and preventive measures as well as other information campaigns through loudspeakers and electronic displays." [4]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[4] 38 North. 20 February 2020. "Pandemics and Preparation the North Korean Way". [<https://www.38north.org/2020/02/eimaabrahamian022020/>]. Accessed 28 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

North Korea does not have a system for public health officials and healthcare workers to communicate during an emergency encompass healthcare workers in both the public and private sector. North Korea has no externally accessible government website for the Ministry of Public Health. The World Health Organization (WHO)'s Country Office for North Korea does not have information on any such system in North Korea, nor if there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] There is no concept of private sector engagement in health emergency management. Article 39 of the Law on Prevention of Infectious Diseases clearly establishes the principle of sole guidance by the Cabinet over infectious disease prevention with local government organs handling detection, isolation, vaccination, and other prevention measures. [3] According to 38 North's analysis, there appears to be a channel of communication between local authorities and their foreign partners functioning during a public health crisis. During the Ebola shutdown in 2014, there were "discussions between Koreans and their foreign partners in the business, NGO and diplomatic communities" over North Korea's response, according to 38 North. [4]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[4] 38 North. 20 February 2020. "Pandemics and Preparation the North Korean Way".
[<https://www.38north.org/2020/02/eimaabrahamian022020/>]. Accessed 28 November 2020.

4.6 INFECTION CONTROL PRACTICES AND AVAILABILITY OF EQUIPMENT

4.6.1 Healthcare associated infection (HCAI) prevention and control programs

4.6.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has a national public health system monitoring for and tracking the number of health care associated infections (HCAI) that take place in healthcare facilities. North Korea has no externally accessible government website. The World Health Organization (WHO) Country Office for North Korea does not have information on any such system in North Korea. [1] The Ministry of Public Health's Medium Term Strategic Plan for the Development of the Health Sector (2016-2020) calls for establishing a database for hospital infection control as one of the proposed activities to ensure the provision of quality health services. [2] The Ministry of Public Health's National Strategic Plan on Antimicrobial Resistance (2018-2020) addresses the need to "improve infection control in healthcare settings" through the development of capabilities to collect, process, analyze, and report data on healthcare associated infections. [3] The National Strategic Plan on Antimicrobial Resistance (2018-2020) is the only North Korea document available from the WHO Library of national action plans. The national plan has no mention of any monitoring or tracking activity with regard to health care associated infections. [4]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] Ministry of Public Health. 2017. "Medium Term Strategic Plan for the Development of the Health Sector (2016-2020)". [http://staging.nationalplanningcycles.org/sites/default/files/planning_cycle_repository/democratic_peoples_republic_of_korea/dpr_korea_medium_term_strategic_plan_2016-20.pdf]. Accessed 28 November 2020.

[3] World Health Organization. "National Strategic Plan on Antimicrobial Resistance (2018-2020)". [<http://extwprlegs1.fao.org/docs/pdf/prk182160.pdf>]. Accessed 28 November 2020.

[4] World Health Organisation. "Library of national action plans". [<http://www.who.int/drugresistance/action-plans/library/en/>]. Accessed 28 November 2020.

4.7 CAPACITY TO TEST AND APPROVE NEW MEDICAL COUNTERMEASURES

4.7.1 Regulatory process for conducting clinical trials of unregistered interventions

4.7.1a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence suggesting the existence of a national requirement for ethical review before beginning a clinical trial in North Korea. North Korea has no externally accessible government website. The World Health Organization (WHO) Country Office for North Korea does not have information on any such requirement in North Korea, nor is there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Pharmaceuticals Control Law has no evidence of a national requirement for ethical review. [3]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbsSubId=016]. Accessed 28 November 2020.

4.7.1b

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

Yes = 1 , No = 0

Current Year Score: 0

There is no publicly available evidence suggesting the existence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. North Korea has no externally accessible government website for the Ministry of Public Health (MOPH). The World Health Organization (WHO) Country Office for North Korea does not have information on an expedited process in North Korea, nor is there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Pharmaceuticals Control Law has no evidence of an expedited process for approving clinical trials for unregistered medical countermeasures to treat ongoing pandemics. [3]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12

November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

4.7.2 Regulatory process for approving medical countermeasures

4.7.2a

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence that North Korea has a government agency responsible for approving new medical countermeasures for humans. North Korea has no externally accessible government website for the Ministry of Public Health (MOPH) or any other relevant ministry. The World Health Organization (WHO) Country Office for North Korea does not have any related information, nor is there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Pharmaceuticals Control Law states that the "central health guiding organ" is responsible for drug approval without specifying the name of the agency. [3] According to the WHO's "Drug Policy and Pharmaceuticals in Health Care Delivery" mission report released in June 2012, the National Drug Regulatory Authority (NDRA) is responsible for ensuring the "quality and safety of all medicines manufactured locally and imported" and enforcing "all national legislation and regulation concerning drugs." The report states: "The Bureau of Allopathic Medicines Manufacturing in MOPH issues licenses for manufacturing plants. The NDRA should be involved in checking all documentation, analyzing drug samples, inspection for GMP, inspection of drug outlet premises, etc. prior to the issuance of licenses for manufacture, importation, pharmacy shops, etc. However, it is unclear what the role of the NDRA is in the issuing of such licenses." [4]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_00000000021&bbsSubId=016]. Accessed 28 November 2020.

[4] WHO, Regional Office for South East Asia. 30 June 2012. "Democratic People's Republic of Korea Drug Policy and Pharmaceuticals in Health Care Delivery: Mission Report 4-15 June 2012". [https://www.who.int/docs/default-source/searo/hsd/edm/csa-dprk-situational-analysis2012.pdf?sfvrsn=3612b6d6_2]. Accessed 28 November 2020.

4.7.2b

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

Yes = 1, No = 0

Current Year Score: 0

There is no publicly available evidence suggesting the existence of an expedited process for approving medical countermeasures (MCM) for human use during public health emergencies. North Korea has no externally accessible government website for the Ministry of Public Health or any other relevant ministry. The WHO Country Office for North Korea does not have information on an expedited process in North Korea, nor is there any mention in the country's WHO Country Cooperation Strategy (2014-2019). [1,2] The Pharmaceuticals Control Law has no evidence of an expedited process.

[3] The WHO's "Drug Policy and Pharmaceuticals in Health Care Delivery" mission report released in June 2012 has no mention of an expedited process for approving MCM. [4]

[1] World Health Organization (WHO). Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 28 November 2020.

[2] WHO. 2016. "WHO Country Cooperation Strategy (2014-2019)". [<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

[3] Supreme People's Assembly. 10 December 1998. "Law on Pharmaceuticals Management (의약품관리법) of 12 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbsSubId=016]. Accessed 28 November 2020.

[4] WHO, Regional Office for South East Asia. 30 June 2012. "Democratic People's Republic of Korea Drug Policy and Pharmaceuticals in Health Care Delivery: Mission Report 4-15 June 2012". [https://www.who.int/docs/default-source/searo/hsd/edm/csa-dprk-situational-analysis2012.pdf?sfvrsn=3612b6d6_2]. Accessed 28 November 2020.

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

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

5.1.1 Official IHR reporting

5.1.1a

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

Yes = 1 , No = 0

Current Year Score: 1

2020

World Health Organization

5.1.2 Integration of health into disaster risk reduction

5.1.2a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no public evidence that North Korea has a national risk reduction strategy that integrates epidemics and pandemics or a standalone national disaster risk reduction strategy for epidemics and pandemics. According to an updated Nationally Determined Contribution (NCD) to the Secretariat of the United Nations Framework Convention on Climate Change, North Korea has developed the "National Disaster Risk Reduction Strategy 2019-2030" and the "National Environment Protection Strategy 2019-2030." The notice from North Korea's Permanent Mission to the United Nations dated 19 September 2019 contains no mention of epidemic and pandemic risk reduction. There is no further evidence elaborating on the new national disaster risk strategy. [1] The Law on Prevention of Infectious Diseases does not have relevant provisions. [2]

[1] DPRK Permanent Mission to the United Nations. 19 September 2020. "Updated Nationally Determined Contribution of the DPRK".

[https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Democratic%20People%27s%20Republic%20of%20Korea%20First/2019.09.19_DPRK%20letter%20to%20SG%20special%20envoy%20for%20NDC.pdf]. Accessed 13 December 2020.

[2] Supreme People's Assembly. 7 January 2015. "Law on Prevention of Infectious Diseases (전염병예방법) of 5 November 1997". [https://www.unilaw.go.kr/bbs/selectBoardList.do?bbsId=BBSMSTR_000000000021&bbSubId=016]. Accessed 8 December 2020.

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

5.2.1 Cross-border agreements

5.2.1a

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

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

Current Year Score: 1

North Korea has an agreement with South Korea to collaborate on the prevention of pandemic outbreaks and the management of public health emergencies; however, there are gaps in implementation. The Pyeongyang Joint Declaration issued from a summit between North and South Korea in September 2018 includes an inter-Korean agreement to "strengthen cooperation in the areas of prevention of epidemics, public health and medical care, including emergency measures to prevent the entry and spread of contagious diseases". [1] In November 2018 North Korea and South Korea agreed to share information on infectious diseases with each other. However, there has been no reported follow-up action. [2] Citing Chinese state media, BBC reported on 9 May 2020 that Chinese President Xi Jinping expressed concern about the pandemic risk in China's traditional ally North Korea. Xi urged "efforts to strengthen cooperation in preventing the spread of the coronavirus" and expressed willingness to "continue to provide assistance within its own capacity for [North Korea] in the fight against Covid-19." [3] The WHO is committed to working on regional collaboration ties between North Korea and neighboring countries including South Korea, China and Japan. According to the WHO Country Cooperation Strategy (2014-2019) for North Korea, "efforts to further improve communication and facilitate collaboration with other levels of WHO as well as partners outside of the country are ongoing." The Regional Office's role in facilitating inter-regional multi-country collaboration is also emphasized in the area of malaria and other communicable diseases. [4]

[1] South Korean Ministry of Unification. 21 September 2018. "Pyeongyang Joint Declaration of September 2018".

[http://unikorea.go.kr/eng_unikorea/news/releases/?boardId=bbs_00000000000034&mode=view&cntId=54193&category=&pageIdx=]. Accessed 28 November 2020.

[2] South Korean Ministry of Unification. 7 November 2018. "Joint Statement on Inter-Korean Healthcare Subcommittee Meeting". [<https://dialogue.unikorea.go.kr/ukd/e/usrtalkmanage/View.do>]. Accessed 28 November 2020.

[3] BBC. 9 May 2020. "Coronavirus: China offers to help North Korea fight pandemic". [<https://www.bbc.com/news/world-asia-52597749>]. Accessed 28 November 2020.

[4] World Health Organization. 2016. "WHO Country Cooperation Strategy (2014-2019)".

[<http://apps.who.int/iris/handle/10665/250298>]. Accessed 28 November 2020.

5.2.1b

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

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

Current Year Score: 0

There is no evidence suggesting that North Korea has cross-border agreements, protocols or MOUs with neighboring countries, or as part of a regional group, with regards to animal health emergencies. North Korea has no externally accessible government website for the Ministry of Public Health or any other relevant agency. The Food and Agriculture Organization (FAO) or the World Organization for Animal Health (OIE) has no record of such an agreement North Korea has with neighboring countries. [1, 2] The FAO, however, has developed the Country Programming Framework (CPF) for 2018-2021 through "consultation and agreement" with the National Committee for FAO including the Ministry of Foreign Affairs, the Ministry of Agriculture, the Ministry of Land and Environment Protection, the Ministry of Fisheries, the Ministry of Urban Management, the State Committee for Emergency and Disaster Management (SCEDM), and the State Commission of Science and Technology as well as with UN agencies. The CPF cites "provision of improved animal health care" among the best practices to target during the plan period. [3] There is a legacy inter-Korean agreement for health and environmental protection. The Inter-Korean Health and Environment Protection Cooperation Subcommittee agreement signed in December 2007 contains provisions on infectious disease control and prevention with no mention of animal health. [4]

[1] Food and Agriculture Organization. "FAO in the Democratic People's Republic of Korea". [<http://www.fao.org/democratic-peoples-republic-of-korea/fao-in-dpr-korea/en/>]. Accessed 29 November 2020.

[2] World Organization for Animal Health. "Cooperation agreements". [<https://www.oie.int/en/about-us/key-texts/cooperation-agreements/>]. Accessed 29 November 2020.

[3] FAO. October 2018. "Country Programming Framework for the Democratic People's Republic of Korea". [<http://www.fao.org/3/ca3052en/ca3052en.pdf>]. Accessed 29 November 2020.

[4] South Korean Ministry of Unification. 21 December 2007. "Inter-Korean Health and Environment Protection Cooperation Subcommittee agreement". [<https://www.korea.kr/archive/expDocView.do?docId=22087>]. Accessed 8 December 2020.

5.3 INTERNATIONAL COMMITMENTS

5.3.1 Participation in international agreements

5.3.1a

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

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

Current Year Score: 2

2021

Biological Weapons Convention

5.3.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

Biological Weapons Convention

5.3.1c

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

Yes = 1 , No = 0

Current Year Score: 0

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: 0

2021

Biological Weapons Convention

5.3.2 Voluntary memberships

5.3.2a

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

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

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

Current Year Score: 0

2021

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

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

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

5.4.1a

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

5.4.1b

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

Yes = 1 , No = 0

Current Year Score: 0

2021

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

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

5.4.2a

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

Yes = 1 , No = 0

Current Year Score: 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 insufficient evidence that North Korea has allocated national funds to improve capacity to address epidemic threats within the past three years. North Korea has no externally accessible government website for the Ministry of Public Health or any other relevant ministry. North Korea, in the past year, has indicated an ongoing commitment to national "anti-epidemic" efforts without mentioning use of national funds. Reuters reported on 15 November 2020 that North Korean leader Kim Jong Un "ordered a tightening of state emergency anti-coronavirus systems in the face of the worldwide pandemic" as part of the ongoing "80-day" economic revitalization campaign. [1] The Korean Central News Agency reported on 29 November 2020 that "emergency anti-epidemic system is in full force in the country with endeavors increasing to take cautions against possible porosity and take preemptive measures." [2] A state media report on 2019 and 2020 national budgets cites projected spending on "public health" in 2020 at 107.4% of the previous year's level. [3] North Korea has no externally accessible government website for the Ministry of Public Health or any other relevant ministry. North Korea's 2019 budget report contains no mention of spending on public health programs. [4]

[1] Reuters. 15 November 2020. "North Korea's Kim orders tightening of anti-virus measures amid global pandemic - KCNA". [https://www.reuters.com/article/health-coronavirus-northkorea/north-koreas-kim-orders-tightening-of-anti-virus-measures-amid-global-pandemic-kcna-idUSKBN27W018]. Accessed 29 November 2020.

[2] Korean Central News Agency (KCNA). 29 November 2020. "Stricter State Emergency Anti-epidemic Measures Enforced in DPRK". [https://kcnawatch.org/newstream/1606631629-873711687/stricter-state-emergency-anti-epidemic-measures-enforced-in-dprk/]. Accessed 29 November 2020.

[3] KCNA. "Implementation of State Budget for Juche 108 (2019) and State Budget for Juche 109 (2020)". [https://kcnawatch.org/newstream/1586727497-208920578/Implementation-of-State-Budget-for-Juche-108-(2019)-and-State-Budget-for-Juche-109-(2020/)]. Accessed 29 November 2020.

[4] 38 North. 13 April 2019. "The North Korean Parliamentary Session and Budget Report 2019: Signs of Economic Stagnation

and an Open Claim to Leadership on the Korean Peninsula". [<https://www.38north.org/2019/04/rfrank041319/>]. Accessed 29 November 2020.

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

5.5.2a

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

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

Current Year Score: 0

2021

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

5.5.2b

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

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

Current Year Score: 0

2021

OIE PVS assessments

5.5.3 Financing for emergency response

5.5.3a

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

Yes = 1 , No = 0

Current Year Score: 0

There is no evidence of existence of publicly identified special emergency public financing mechanism and funds which the country can access in the face of a public health emergency. North Korea has no external government website to independently verify information. The World Bank does not list North Korea among IDA borrowing countries or PEF recipient countries. [1,2] There is, however, evidence of emergency funds provided for the country for humanitarian purposes and during times of crisis. For example, UNICEF provides UN-organized public health funding for North Korea. A total of US\$2m in COVID-19 humanitarian aid was received in the reporting period of January-June 2020. [3]

[1] World Bank. "IDA Borrowing Countries". [<http://ida.worldbank.org/about/borrowing-countries>]. Accessed 29 November 2020.

[2] World Bank Pandemic Financing Facility. "Pandemic Emergency Financing Facility". [<http://pubdocs.worldbank.org/en/119961516647620597/PEF-Operational-Brief-Dec-2017.pdf>]. Accessed 29 November 2020.

[3] UNICEF. "UNICEF DPRK Humanitarian Situation Report No. 1". [<https://reliefweb.int/sites/reliefweb.int/files/resources/UNICEF%20DPRK%20Humanitarian%20Situation%20Report%20No.%201%20-%20January-June%202020.pdf>]. Accessed 29 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 that senior leaders have made a public commitment to support other countries to improve capacity to address epidemic threats by providing financing or support in the past three years. There is also insufficient evidence that senior leaders have made a public commitment to improve the country's own domestic capacity to address epidemic threats in the past three years. North Korean leader Kim Jong Un in the past year has repeatedly issued statements on strengthening the country's "anti-epidemic" posture against COVID-19. However, none of Kim's statements has touched on the topic of how to fund the efforts. [1, 2] The Korean Central News Agency reported on 14 August 2020 Kim saying: "The situation, in which the spread of the worldwide malignant virus has become worse, requires us not to allow any outside aid for the flood damage but shut the border tighter and carry out strict anti-epidemic work." [3]

[1] NK News. 10 October 2020. "Kim Jong Un thanks North Koreans for 'zero' COVID-19 cases in the country." [<https://www.nknews.org/2020/10/north-korea-projects-covid-19-confidence-as-parade-attendees-forego-masks/>]. Accessed 29 November 2020.

[2] Reuters. 15 November 2020. "North Korea's Kim orders tightening of anti-virus measures amid global pandemic - KCNA". [<https://www.reuters.com/article/health-coronavirus-northkorea/north-koreas-kim-orders-tightening-of-anti-virus-measures-amid-global-pandemic-kcna-idUSKBN27W018>]. Accessed 29 November 2020.

[3] The Associated Press. 13 August 2020. "North Korea lifts lockdown in city, rejects flood, virus aid". [<https://apnews.com/article/virus-outbreak-ap-top-news-seoul-pyongyang-international-news-c1f46e5e7344cb2b917e750d20c4c815>]. Accessed 29 November 2020.

5.5.4b

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

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

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

Current Year Score: 1

Although there is no evidence that North Korea has provided other countries with financing or technical support to improve capacity to address epidemic threats in the past three years, there is evidence that North Korea has specifically requested financing or technical support from donors to improve the country's domestic capacity to address epidemic threats. North Korea has no externally accessible government website for the Ministry of Public Health or any other ministry. The Global Health Security Funding Tracker shows that North Korea has received funding from multiple donors in the amount of US\$286.69m between 2014 and 2020. The funds disbursed by core capacity are US\$209.5m for immunization, US\$77.19m for real-time surveillance, US\$37.16m for the national laboratory system, US\$34.91m for antimicrobial resistance, US\$12.61m for emergency operations, US\$12.61m for workforce development, US\$2.13m for zoonotic disease, US\$321,920 for national legislation, policy and financing, and US\$92,460 for reporting. Data for 2020 alone are not available. [1] North Korea's official position on COVID-19 aid is that the country will not receive any outside assistance. [2] Citing the South Korean Ministry of Unification, The Korea Times reported on 22 October 2020 that "the South Korean government has approved private organizations' plans to send COVID-19 quarantine supplies to North Korea on six occasions, but actual delivery has not been made due to the North's rejection." [3]

[1] Global Health Security Tracking. [<https://tracking.ghscosting.org/details/185/recipient>]. Accessed 8 December 2020.

[2] The Associated Press. 13 August 2020. "North Korea lifts lockdown in city, rejects flood, virus aid".

[<https://apnews.com/article/virus-outbreak-ap-top-news-seoul-pyongyang-international-news-c1f46e5e7344cb2b917e750d20c4c815>]. Accessed 29 November 2020.

[3] The Korea Times. 22 October 2020. "North Korea rejects COVID-19 aid from South".

[https://www.koreatimes.co.kr/www/nation/2020/10/103_298037.html]. Accessed 29 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 insufficient evidence that North Korea has a publicly available plan or policy for sharing genetic data, clinical specimens, and/or isolated specimens (biological materials) along with the associated epidemiological data with international organizations and/or other countries that goes beyond influenza. North Korea has no externally accessible government website, including for the Ministries of Public Health, the Ministry of Agriculture, or any other government agency. In November 2018 North Korea agreed with South Korea to share information on infectious diseases. However, there has been no reported follow-up action. [1] North Korea participated in the World Health Organization (WHO)'s National TB Prevalence Survey for 2015-2016 based on "100 survey clusters that comprised a total of 71,877 population." [2] North Korea has denied the existence of COVID-19 in the country without providing epidemiological data. The WHO's COVID-19 database shows zero confirmed case in North Korea. [3, 4]

[1] South Korean Ministry of Unification. 7 November 2018. "Joint Statement on Inter-Korean Healthcare Subcommittee Meeting". [<https://dialogue.unikorea.go.kr/ukd/e/usrtalkmanage/View.do>]. Accessed 29 November 2020.

[2] World Health Organization (WHO). "Comprehensive report of the DPR Korea's national TB prevalence Survey 2015–2016". [<http://origin.searo.who.int/dprkorea/documents/report-of-the-dprk-national-tb-prevalence-survey/en/>]. Accessed 29 November 2020.

[3] RAND Corporation. 2 April 2020. "North Korea: Denying COVID-19". [<https://www.rand.org/blog/2020/04/north-korea-denying-covid-19.html>]. Accessed 29 November 2020.

[4] WHO. "WHO Coronavirus Disease (COVID-19) Dashboard". [<https://covid19.who.int/>]. Accessed 29 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 North Korea has or has not shared samples in accordance with the Pandemic Influenza Preparedness (PIP) framework in the past two years. The World Health Organization (WHO)'s survey on the pandemic influenza preparedness in WHO Member States, released in June 2019, does not cover North Korea. [1] However, there was evidence of lack of data sharing more than two years past. The WHO's "External Evaluation of the Pandemic Influenza Preparedness Partnership Contribution - High-Level Implementation Plan 2013-2016" cites lack of data submission from North Korea. The report states that North Korea "continues not to report virological data" and "continues not to share influenza virus samples". [2] The WHO's "Pandemic Influenza Preparedness Framework Partnership Contribution High-Level Implementation Plan I. Final Report 2014-2017" cites an improvement in North Korea's reporting: "PIP funds helped to improve laboratory infrastructure and equipment, and to supply reagents and consumables. This has enabled the NIC [National Influenza Center] to conduct regular influenza testing and reporting, and to share information globally through WHO FluNet." [3]

[1] World Health Organization. June 2019. "Pandemic influenza preparedness in WHO Member States". [<https://www.who.int/publications/i/item/9789241515962>]. Accessed 29 November 2020.

[2] WHO. November 2016-February 2017. "External Evaluation of the Pandemic Influenza Preparedness Partnership Contribution - High-Level Implementation Plan 2013-2016". [http://www.who.int/about/evaluation/pip_evaluation_report.pdf]. Accessed 8 December 2020.

[3] WHO. 30 November 2018. "Pandemic Influenza Preparedness Framework Partnership Contribution High-Level Implementation Plan I. Final Report 2014-2017". [<https://apps.who.int/iris/bitstream/handle/10665/276211/WHO-WHE->

IHM-PIP-2018.3-eng.pdf]. Accessed 8 December 2020.

5.6.1c

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

Yes = 0, No = 1

Current Year Score: 1

There is no public evidence that North Korea has or has not shared pandemic pathogen samples during an outbreak in the past two years. North Korea has no externally accessible government website. The WHO North Korea Country Office has no information suggesting North Korea has not shared pandemic pathogen samples during an outbreak in the past two years. [1] No evidence was found on the WHO or on top international and local media outlets. [2] As of late 2020, North Korea has denied the existence of COVID-19 in the country. [2. 3]

[1] World Health Organization. Country Office for North Korea. [<https://www.who.int/dprkorea/>]. Accessed 29 November 2020.

[2] RAND Corporation. 2 April 2020. "North Korea: Denying COVID-19". [<https://www.rand.org/blog/2020/04/north-korea-denying-covid-19.html>]. Accessed 29 November 2020.

[3] WHO. "WHO Coronavirus Disease (COVID-19) Dashboard". [<https://covid19.who.int/>]. Accessed 29 November 2020.

Category 6: Overall risk environment and vulnerability to biological threats

6.1 POLITICAL AND SECURITY RISK

6.1.1 Government effectiveness

6.1.1a

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1b

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

Input number

Current Year Score: 1

2020

Economist Intelligence

6.1.1c

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1d

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1e

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

Input number

Current Year Score: 18

2020

Transparency International

6.1.1f

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

Input number

Current Year Score: 0

2020

Economist Intelligence

6.1.1g

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

Input number

Current Year Score: 0

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: 0

2021

Economist Intelligence

6.1.3 Risk of social unrest

6.1.3a

What is the risk of disruptive social unrest?

Very low: Social unrest is very unlikely = 4, Low: There is some prospect of social unrest, but disruption would be very limited = 3, Moderate: There is a considerable chance of social unrest, but disruption would be limited = 2, High: Major social unrest is likely, and would cause considerable disruption = 1, Very high: Large-scale social unrest on such a level as to seriously challenge government control of the country is very likely = 0

Current Year Score: 2

2021

Economist Intelligence

6.1.4 Illicit activities by non-state actors

6.1.4a

How likely is it that domestic or foreign terrorists will attack with a frequency or severity that causes substantial disruption?

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

Current Year Score: 3

2021

Economist Intelligence

6.1.4b

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

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

Current Year Score: 4

2020

UN Office of Drugs and Crime (UNODC)

6.1.4c

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

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

Current Year Score: 1

2021

Economist Intelligence

6.1.5 Armed conflict

6.1.5a

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

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

Current Year Score: 1

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: 0

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: 77

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: -

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: -

-

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: 1

According to the South Korean Ministry of Unification's survey on former North Korean residents, 48% of the respondents said that they had obtained income from informal employment or a combination of informal and formal employment before their arrival in South Korea between 2016 and 2019. [1] The latest study published by the Korea Development Institute in February 2020 notes that North Korea's unofficial private sector economy has continue to expand, although no hard data are available on the size of the marketized economy in North Korea. [2] The International Labor Organization's statistics on the informal economy does not cover North Korea. [3] The World Bank's informal employment data do not include North Korea. [4]

[1] The Dong-a Ilbo. "48% of former North Korean residents made living in informal economy".

[<https://www.donga.com/news/Politics/article/all/20200213/99676529/1>]. Accessed 29 November 2020.

[2] Korea Development Institute. 4 February 2020. "KDI Review of the North Korean Economy for January 2020".

[https://www.kdi.re.kr/forecast/forecasts_north.jsp?pub_no=16438]. Accessed 8 December 2020.

[3] International Labor Organization. "Statistics on the informal economy". [<https://ilostat.ilo.org/topics/informality/>]. Accessed 29 November 2020.

[4] World Bank. "Informal employment." [<https://data.worldbank.org/indicator/SL.ISV.IFRM.ZS>]. Accessed 29 November 2020.

6.2.3c

Coverage of social insurance programs (% of population)

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

Current Year Score: 2

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: 0

2021

Economist Intelligence Democracy Index

6.2.6 Inequality

6.2.6a

Gini coefficient

Scored 0-1, where 0=best

Current Year Score: -

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: 1

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: 1

2021

Economist Intelligence

6.4 ENVIRONMENTAL RISKS

6.4.1 Urbanization

6.4.1a

Urban population (% of total population)

Input number

Current Year Score: 62.13

2019

World Bank

6.4.2 Land use

6.4.2a

Percentage point change in forest area between 2006–2016

Input number

Current Year Score: -1.76

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: 0

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: 72.09

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: 597

2019

WHO

6.5.1c

Population ages 65 and above (% of total population)

Input number

Current Year Score: 9.26

2019

World Bank

6.5.1d

Prevalence of current tobacco use (% of adults)

Input number

Current Year Score: 18.8

2018

World Bank

6.5.1e

Prevalence of obesity among adults

Input number

Current Year Score: 6.8

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: 94.51

2017

UNICEF; Economist Impact

6.5.2b

Percentage of homes with access to at least basic sanitation facilities

Input number

Current Year Score: 83.16

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: -

2018

WHO Global Health Expenditure database

6.5.4 Trust in medical and health advice

6.5.4a

Trust medical and health advice from the government

Share of population that trust medical and health advice from the government , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018

6.5.4b

Trust medical and health advice from medical workers

Share of population that trust medical and health advice from health professionals , More than 80% = 2, Between 60-80%, or no data available = 1, Less than 60% = 0

Current Year Score: 1

2018

Wellcome Trust Global Monitor 2018