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Mid-Term Strategic Plan for the Public Health and Medical Care Cooperation in the Korean Peninsula

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ABSTRACT

As extensive as the concept of and the resources required for ‘Health for Korean Unification’ are, and due to the limited access to information on the state of health and medical care in North Korea, discussion on ‘Health for Korean Unification’ has tended to be intermittent and lacked concrete action plans. In this article, we specifically distinguished areas of cooperation and selected five executable agenda that meet the goals of international development cooperation: 1) Health security; 2) Easing the burden of major diseases; 3) Resilient healthcare system; 4) R&D cooperation; 5) Sustainable cooperation system. Then we provided corresponding strategic priorities and operative directions, in consideration of future military and political sanctions against North Korea. The strategies we outline are sustainable, preemptive for problems that might affect lives of South and North Korean citizens, and satisfy the unmet needs of the North Korean health system. Throughout the process, we utilized a special platform, the ‘Korean Peninsula Healthcare Cooperation Platform,’ designed to enable continual communication across sectors engaged in public health and medical care. By doing so, we take the first step to actually carry out the ‘Health for Korean Unification,’ which tended to have remained on the discussion agenda.

Keywords: Health for Korean Unification; Korean Peninsula Health Community; Public Health and Medical Care Cooperation; North Korea

‘THE HEALTH FOR KOREAN UNIFICATION’ TOWARDS ‘THE KOREAN PENINSULA HEALTH COMMUNITY’

Healthcare cooperation on the Korean Peninsula is crucial for the lives and safety of residents in both North and South Korea. Therefore, sustainable collaboration is essential, irrespective of political and security situations. It includes varying types of assistance programs to North Korea to guarantee and improve the right to health of North Koreans. More importantly, it is a series of multidisciplinary efforts to analyze and prevent problems that might arise from disparate medical systems of South Korea and North Korea after the unification, such

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Author Contributions

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as diseases that might spread due to heterogeneous immune systems of residents who have been living in dissimilar environments for over 70 years.

In 2018, the 'The Association for the Health for Korean Unification' first devised the concept of 'The Korean Peninsula Health Community.'¹ In 2021, they collaborated with the Ministry of Unification to launch a dedicated online platform. This platform enables public health and medical care experts from various sectors to share information, discuss, and actively participate in "The Health for Korean Unification" initiative (<https://kohp.unikorea.go.kr/index.jsp>). It was an effort to ultimately pursue future-oriented cooperation, apart from the past and present political and military situations, by building and promoting an ethos of the Korean Peninsula where lineages of divided Koreas have been commonly rooted for 700,000 years.

One of the main justifications for the 'The Health for Korean Unification' is the cost.² If no preemptive measures are made given the number of scenarios surrounding the unification, chaos arising from the peaceful marriage or forceful merger of different systems will be only more dystopian. Still, apart from economic aspects, the fact that public health and medical care directly affect the lives of the citizens qualifies for the necessity of sustainable cooperation, regardless of the changing political or security stances.³ Further, many assistance programs have been stunted by prolonged coronavirus disease 2019 sanctions. The gap between South and North Korean residents in life expectancy and the burden of disease is well-documented.^{4,7} All in all, these circumstances should not be neglected in order to guarantee the right to health of North Korean residents and the well-being of the unified community.

Looking at the assistance programs targeting North Korea's public health and medical care sectors led by domestic entities, private organizations account for the highest portion of support for pharmaceuticals and medical equipment. Government agencies have been major contributors to the construction of medical facilities.⁸ Importantly, Ha et al.⁸ have reported that because areas and scopes of assistance programs are ultimately determined at North Korean authorities' request, which tend to concentrate on alleviating specific diseases, vulnerable regions and groups of residents in North Korea are often neglected. They also reported that assistance programs led by international organizations focused on support for long-term and specialized technology transfer areas, such as capacity building for health personnel, improvement of the health care system, and promotion of health policies.⁸ For example, in a 9-month pilot intervention program conducted by the World Health Organization (WHO) on non-communicable disease, the package of essential non-communicable diseases, the 10-year risk of cardiovascular disease among participants was significantly decreased.⁹ This experiment highlighted that North Korean primary care doctors were capable of understanding and implementing protocols provided from abroad and ultimately yielded exemplary precedents. In the 'The Health for Korean Unification' where South Korea and North Korea work jointly, South Korean government agencies and private organizations should also take more initiatives to support North Korean health policies and services, such as in the form of personnel training.¹⁰

However, in a situation when access to information on the state of health and medical care in North Korea is limited,¹¹ continually intermittent discussions on abstract ideas calls for more concrete strategies and specific action plans. While the scope of public health and medical cooperation between South and North Korea thus far has been determined by the request of North Korean authorities, we propose strategies that are sustainable and preemptive for problems that are likely to affect lives of South and North Korean citizens so that unmet

needs of the North Korean health system could be met. In this article, we first distinguished areas of cooperation, selected executable agendas among them, and provided strategic and operative directions.

DEVELOPMENT PROCESS OF STRATEGIC ACTIVITIES

Collection, review, and analysis of relevant literature

We undertook the collection, review, and analysis of pertinent literature as a foundational step in the development of strategic activities. This involved a comprehensive examination of the cooperation strategy between international organizations and North Korean authorities, as well as an in-depth review of the existing inter-Korean health cooperation plan. Additionally, we analyzed the healthcare cooperation demand in North Korea, assessed the trends of North Korean authorities, and examined mid-to-long-term roadmap recommendations provided by international organizations such as the United Nations (UN) and WHO. Our process also involved a scrutiny of recent healthcare cooperation initiatives led by our government, utilizing relevant literature.

Categorization of healthcare cooperation demand

To systematically categorize the demand for healthcare cooperation, we conducted a survey encompassing diverse stakeholders, including government ministries, local governments, domestic and international academia, domestic civil organizations, domestic and international businesses and industries, and international organizations and NGOs. This three-round survey, conducted from March 17 to July 07, 2021, with 33 participants, involved a two-step clustering typology divided into three stages: data preprocessing, text mining, and clustering analysis for categorization. The key demands were derived through this process.

During the initial round, open-ended questionnaires were distributed to domestic and international organizations and experts in accordance with the Ministry of Unification's recommendation. Subsequently, closed questionnaires were employed in the secondary round. The Basic Priority Rating System was utilized to identify and prioritize health-related issues. The third round involved personalized questionnaires, combining the overall response average from the panel with each panel member's secondary response. To evaluate the consensus on priorities among panel members, metrics such as the degree of stability (< 0.5), content validity (≥ 0.438), convergence (≤ 0.5), and consensus (≥ 0.75) were employed for quantitative evaluation.

Gathering feedback from expert groups

Building upon the results of the categorized demand and prioritization of plans, we sought feedback from both the platform division and The Association of Healthcare for Korean Unification to formulate a cooperative agenda.

CREATING A ‘KOREAN PENINSULA HEALTH COMMUNITY’ THROUGH SUSTAINABLE COOPERATION

The range of and resources required for medium-to-long-term health and medical cooperation on the Korean Peninsula are not only extensive, but also surrounded by uncertain political and military variables. North Korea's recent military provocations in accordance with

its upgrading nuclear force have made the exchange of personal letters between ex-President Moon and Chairman Kim in April 2022 mere pieces of paper full of powerless words.¹² North Korea is currently under UN sanctions. Carrying out agendas for the 'The Korean Peninsula Health Community' that are not considered for these situations cannot be effective. Therefore, to pursue functional and efficacious cooperation, a comprehensive, step-by-step roadmap that considers the gradual easing and lifting of UN sanctions is necessary.

Agenda: five areas of cooperation

After collecting opinions of experts across health care and medical sectors, we selected the following five areas of cooperation that could also meet goals of international development cooperation (Fig. 1):

1. Health security
2. Easing the burden of major diseases
3. Resilient healthcare system
4. R&D cooperation
5. Sustainable cooperation system

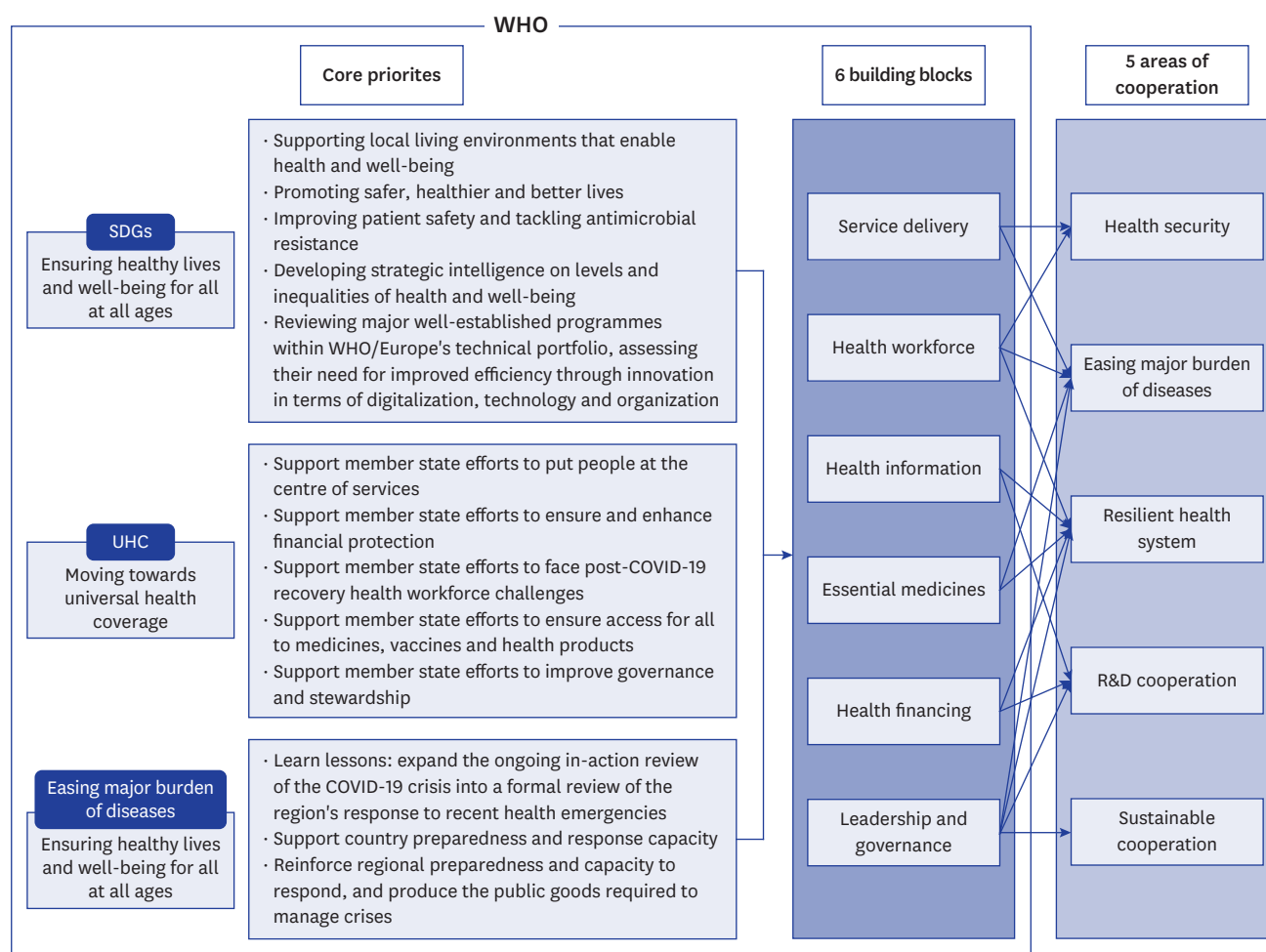


Fig. 1. Linkage diagram of the five agendas with the WHO's core values and six building blocks.

WHO = World Health Organization, SDG = Sustainable Development Goal, UHC = universal health coverage, COVID-19 = coronavirus disease 2019.

First, ‘health security’ is a concept created by combining the concept of health and life with that of security.¹³ It has been drawing attention due to the recent pandemic. From North Korea’s strategic point of view, health security is a very tempting and better yet necessary area of concern, as guarding it is directly related to the regime’s stability. Because it also aligns with the existential goal of the ‘Korean Peninsula Health Community,’ we selected it as the first agenda. Second, relieving the burden of major diseases is reasonable enough in itself from a public health point of view. Also importantly, it is valid in terms of cost-efficacy. The differential burden of major diseases is a major mediator for the health gap between South Korea and North Korea. Shortening this gap is a logical step to reduce costs that are likely to arise after unification. Third, building a resilient healthcare system means more than strengthening the healthcare system, which has been a major public health agenda. The major lesson earned from responses to the recent pandemic has been the resiliency of each country’s healthcare system.^{14,15} Here, we pay attention to building resiliency in the health sector within North Korea’s special political and economic climate. Fourth, R&D cooperation includes research and development that can contribute to humanity as a whole, as well as solving public health, humanitarian, and political problems between South Korea and North Korea. South and North Koreans have been separated for more than 70 years. However, they share the same genetic traits. The ecosystem and infectious pathogens in North Korea have been preserved and isolated over this period. Combination of these circumstances and the environment poses unique research questions and provides an advantageous research setting, which is rare to find in recent history.¹⁶ Lastly, constructing a sustainable system should be prioritized above all as it is an existential reason for the ‘Korean Peninsula Health Community.’ Our strategy report is also built utilizing a special online platform designed to ensure sustainable cooperation.

Objectives and priorities

We set objectives for each agenda and provide priorities along with implementation guidelines in consideration of sanctions (Tables 1-6). We divided sanctions into three categories:

1. Relieving the border blockade/Continuing UN sanctions
2. Lifting the border blockade/Continuing UN sanctions
3. Lifting the border blockade/UN sanctions relief

The Korean Peninsula Healthcare Cooperation Platform

As a large number of experts across sectors are needed to carry out ‘The Health for Korean Unification,’ to build an effective strategy leading to successful implementation, solidarity across actors is key. In order to do so, it is necessary to minimize time and space constraints in sharing and collecting opinions of a wide range of stakeholders, including the private

Table 1. Five areas of cooperation and objectives in order

Agenda	Health security	Easing the burden of major diseases	Resilient healthcare system	R&D cooperation	Sustainable cooperation system
Goal1	Creating a health safety net for women and children	Establishment of joint response system for new infectious disease	Strengthening the capacity of health personnel	Developing solutions for major health problems in DPRK	Promoting Health Medical Platform in Korean Peninsula
Goal2	Creating an environment for clean water and sanitation	Management system for major endemic infectious diseases	Modernization of healthcare facilities to provide essential health services	Developing future innovative solutions for health problems	Systematization of planning, monitoring and evaluation
Goal3	Establishment of joint response system for environmental health crisis	Promoting of non-infectious disease management projects	Reinforcement of medical production capacity including essential medicines and equipment	R&D on the internationalization of the healthcare system in DPRK	Laying the foundation for cooperation

DPRK = Democratic People’s Republic of Korea.

Table 2. Objectives, priorities, and operative guidelines in consideration of sanctions

Agenda	Alignment with international development organizations	Objectives	Priorities	Implementation guidelines	Feasible stage
Health security	SDG 2,3 WHO UHC	Creating a health safety net for women and children	Promoting large-scale international maternal and child health projects	- Revitalization of North Korean maternal and child health programs through financial contributions from the South Korean government and cooperation with international organizations - Implementation and monitoring of North Korean maternal and child health surveys such as MICS, SDHS, and National Nutritional Survey	1–2
			Strengthening capacity to provide essential medical services for maternal and child health	- Providing knowledge and skills for maternal and child health personnel at North Korea's first and second medical institutions and training programs - Cooperation with UNICEF/GAVI to expand basic vaccination for infants	1–2
			Cooperation in establishing infrastructure to improve nutrition for women and children	- Support for establishing and maintaining food production plants for self-sufficiency - Support for establishment and maintenance of research institutes for development of nutritional therapeutic development	2–3
	SDG 6,11,17 WHO UHC	Creating an environment for clean water and sanitation	Cooperation in establishing a safe drinking water supply system	- Survey on status of water supply system infrastructure both of the international community and North Korean authorities - Support for construction and repair of sewage system infrastructure	1
			Cooperation to strengthen the hygiene education system	- Cooperation in the development of education programs on essential hygiene including washing hands or avoiding open defecation, etc. - Cooperation in the development of health education programs linking nutrition and hygiene (such as nutrition food or dental education, etc.)	1–2
			Cooperation in establishing sanitary facilities infrastructure	- Survey on status of sewage system both of the international community and North Korean authorities - Support for construction and repair of sewage system infrastructure	2–3
	SDG 13,17 UNEP WMO	Establishment of joint response system for environmental health crisis	Establishment of Northeast Asia Climate Crisis Response Cooperation	- Establishment of a response system for climate crisis includes countries in the border area and international environmental organizations - Establishment of inter-Korean fine dust joint response hotline (monitoring and information sharing, joint response, etc.)	1–2
			Joint research on environmental health response on the Korean Peninsula	- Research on the joint environmental health epidemiological investigation of the inter-Korean and the establishing countermeasures - Inter-Korean research for green détente roadmap planning in the health sector	1–2
			Strengthening the capacity of environmental health & disaster medical professionals	- Development and implementation of training programs for environmental health and disaster medical professionals - Promoting training and collaboration with international organizations with environmental health and disaster medical	1–2

SDG = Sustainable Development Goal, WHO = World Health Organization, UHC = universal health coverage, UNEP = United Nations Environment Programme, WMO = World Meteorological Organization, MICS = Multiple Indicator Cluster Survey, SDHS = Samoa Demographic and Health Survey, UNICEF/GAVI = United Nations International Children's Emergency Fund/Global Vaccine Alliance.

sector and the government, domestic and international, and across practical and academic fields. Doing so is realizable by utilizing the ‘The Korean Peninsula Healthcare Cooperation Platform’ launched in 2021. Utilizing this platform, we provided five areas of cooperation along with the objectives and priorities presented above.

Table 3. Objectives, priorities, and operative guidelines in consideration of sanctions

Agenda	Alignment with international development organizations	Objectives	Priorities	Implementation guidelines	Feasible stage
Easing the burden of major diseases	SDG 3,17 WHO UHC	Establishment of joint response system for new infectious disease	Establishment of inter-Korean (Northeast Asian) infectious disease response system	- Establishment of inter-Korean infectious disease information sharing system and promoting cooperation system in the field of quarantine and health among Northeast Asian countries - DPRK's participation in partnerships such as the Global Health Security Agenda, etc.	1-2
			Cooperation in establishing DPRK's disinfection information and surveillance system	- Establishment of LIS and rapid response system for new infectious diseases by hub - Cooperation package including the establishment of information and communication infrastructure, technology transfer, and intellectual property protection system	1
			Cooperation in strengthening the capacity to respond to infectious diseases and establishing specialized hospitals	- Establish specialized hospital in infectious diseases with negative pressure isolation room in major cities - Support and link the benchmarking for foreign specialized hospital in infectious diseases	2-3
		Management system for major endemic infectious diseases	Cooperation in establishing diagnosis and surveillance system infrastructure	- Support for DPRK LIS program and IT equipment - Technical support for real-time monitoring and surveillance system establishment (operation, quality, data, manpower management, etc.)	1-2
			Establish major endemic infectious disease eradication belt	- Establishment of a tuberculosis eradication belt on the Korean Peninsula - Promoting Parasite & malaria eradication project in DPRK	1-2
			Strengthening the capacity of infectious disease prevention personnel	- Link with epidemiological investigations and quarantine personnel education programs through third countries (laboratory diagnostic capacity building training, QMS training, epidemiological investigation personnel training, FETP training, etc.) - Benchmarking of existing human resource training programs in developing countries	1-2
		Promoting of non-infectious disease management projects	Expand intervention for step in PEN/best buys	- Revitalization of existing PEN projects and regional expansion - Cooperation in intervention complete best buys interventions including PEN	1-2
			Cooperation with NCD medical service hub institutions	- Support for NCD essential medicines and supplies for primary and secondary medical institutions, which are practical medical contact points for North Korean residents - Matching 1:1 partnership between South and North Korea tertiary medical institutions (mutual visits, technical cooperation, etc.)	1-2
			Participation in the International NCD Network	- Matching DPRK's participation in NCD international partnerships such as the WHO NCD alliance and Lancet's NCD), etc. - Invitation of North Korean officials through UN, NGOs, major academic institutions, etc.	1-2

SDG = Sustainable Development Goal, WHO = World Health Organization, UHC = universal health coverage, DPRK = Democratic People's Republic of Korea, LIS = laboratory information management system, QMS = quality management system, FETP = Field Epidemiology Training Program, PEN = package of essential non-communicable diseases, NCD = non-communicable disease, UN = United Nations, NGO = non-governmental organization.

THE JOURNEY THAT HAS TO BE SUSTAINED

Even in the ever-changing security climate, the ‘The Health for Korean Unification’ toward a ‘The Korean Peninsula Health Community’ must be sustained. North Korea's provocative political statements and actions have been directly linked to sanctions against North Korea by international organizations and Western countries. They have adversely affected the right to health of North Koreans through the direct impact of the reduction of basic drinking resources and suspension of health cooperation projects. However, the right to health is a

Table 4. Objectives, priorities, and operative guidelines in consideration of sanctions

Agenda	Alignment with international development organizations	Objectives	Priorities	Implementation guidelines	Feasible stage
Resilient healthcare system	UN SDG 3,17 UHC	Strengthening the capacity of health personnel	Education and training projects with the international community	- Education of essential health personnel using international organizations and major countries educational programs and human resources - Inviting North Korean personnel to ‘Global Training Hub for Biomanufacturing’ by leveraging WHO & South Korea	1–2
			(Inter-Korean) educational training and academic education programs	- Support international-level electronic resource subscriptions & purchases to North Korean medical universities and medical institutions - Sharing clinical care guidelines and other guidelines and supporting customized production in DPRK	1–2
			Strengthening educational institution capacity through a global network	- Encouraging DPRK’s participation in World Medical Education Society and international conferences - Cooperation in the development of overseas training programs for faculty members at North Korean medical universities	1–2
		Modernization of healthcare facilities to provide essential health services	Support essential medical supplies and equipment through the international community	- Support for essential medicines and medical equipment through international organizations, major countries, and international NGOs - Transfer medical equipment, medical consumables, and management technology for essential medicines	1–2
			Cooperate with the renovation project of medical institutions	- Modernization of infrastructure including electricity/ water/cooling-heating of secondary and tertiary medical institutions - Cooperation for the establishment of regional base People’s Hospitals	2–3
			Cooperate the medical informatization of medical institutions	- Cooperation in equipment and technology support of DPRK’s ‘nationwide telemedicine system’ - Cooperation in the development of hospital patient information system programs	2–3
		Reinforcement of medical production capacity including essential medicines and equipment	Promoting technology transfer and cooperating in medical production facilities technology, base material and raw materials	- Standard GMP personnel training - Promote technology transfer of essential medicines in WHO and South Korea	2–3
			Planning for joint operation of medical production center utilizing ‘Life-Science and Health Complex’	- Implementation of ideas such as ‘medical device complex center,’ ‘GMP pharmaceutical facility,’ ‘agricultural life complex,’ ‘bio venture enterprise,’ and ‘business platform’ in ‘Life-Science and Health Complex’	2–3
			Joint development of medical industry strategy	- Developing medical industry strategies on the Korean Peninsula jointly participated by the Korea Health Industry Promotion Agency and North Korea-related authorities - Promotion of hosting international medical industry conference in DPRK	2–3

UN = United Nations, SDG = Sustainable Development Goal, UHC = universal health coverage, WHO = World Health Organization, DPRK = Democratic People’s Republic of Korea, NGO = non-governmental organization, GMP = good manufacturing practice.

right that must be guaranteed as a human and broadly as a living being. Even in the face of polarized ideologies and extreme political conflicts, continual exchanges through a common interest in health could provide a stepping stone that can overshadow the root cause of the conflict.^{17,18}

In order to bring the concept of the ‘The Korean Peninsula Health Community’ into realization, contemplating public health and medical care cooperation strategies and publicizing them are steps that must be taken. Insights about public health and medical care cooperation with concrete strategies along with action plans are like road signs that can enable a steady move toward the goal of the ‘The Health for Korean Unification’ even in the

Table 5. Objectives, priorities, and operative guidelines in consideration of sanctions

Agenda	Alignment with international development organizations	Objectives	Priorities	Implementation guidelines	Feasible stage
R&D	SDG 2,3,9,17 WHO UHC	Developing solutions for major health problems in DPRK	Cooperation in developing vaccines for infectious diseases and treatments	- Joint research for vaccine development (basic research, refining process, animal testing, analyze efficacy, clinical analysis) - Inter-Korean joint discovery of candidate materials of infectious diseases and cross validation of treatment effects	2-3
			Science & technology cooperation for development and industrialization of natural food resources	- Establish the ‘Inter-Korean Natural Food Resource Technology Knowledge Cooperation Center’ (TBD) - Participate international organizations, major countries, and private organizations in DPRK’s agricultural advancement development project for self-sufficiency	2-3
			Cooperation in establishing an ICT-based national health information system	- Analyzing the information management and building capacity for experts in, healthcare information system management and statistics - Technical and financial support for implement the health statistics software	2-3
		Developing future innovative solutions for health problems	Academic exchange in Inter-Korean medical science and conduct project of Korean Medicine scientification	- Regularization of inter-Korean medical science academic meetings using border areas and third countries - Creating a joint TFT for scientification/modernization of Korean medicine-oriental medicine and implementing project	1-3
			Developing appropriate technology based on innovative technology	- Feasibility study of the North Korean environment as a test bed for appropriate technology development - Research on the convergence of advanced technology in South Korea and appropriate technology in North Korea	2-3
			Joint construction of research cooperation center ‘Life-Science and Health Complex’ in the border area	- Promote joint construction in inter-Korean of an industrial, academia, research institute, and hospital complex (‘Life-Science and Health Complex’ in the DMZ/Kaesong Industrial Complex) - Feasibility study and establishment of a joint committee for the joint establishment of ‘Life-Science and Health Complex’	2-3
		R&D on the internationalization of the healthcare system in DPRK	Research on the standardization of essential health services in DPRK	- Promote joint research between WHO Primary Care Division and South and North Korean researchers - Publish ‘Operational Framework for essential health services: DPRK’	1
			Developing a win-win model between modern medicine and traditional medicine	- Conduct case study on the relationship between modern medicine-oriental medicine in China, Taiwan, and Japan - Study on Korean medicine in DPRK and medical unification model	1
			Research on win-win cooperation models by specialized fields	- Research on cooperation plans for major diseases, lifestyle risk factors, medical culture of South and North Korean residents - Support for selection of win-win cooperation pilot research in specialized fields	1

SDG = Sustainable Development Goal, WHO = World Health Organization, UHC = universal health coverage, DPRK = Democratic People's Republic of Korea, ICT = information and communication technology, TFT = thin-film transistor, DMZ = demilitarized zone.

face of changing political and security circumstances. It could also provide a transition to South and North Korean relations. Still, more importantly, it is meaningful in itself because the ultimate purpose of the ‘The Korean Peninsula Community’ lies in the process of healthy lives of residents of the Korean Peninsula seen in the history of the future.

Table 6. Objectives, priorities, and operative guidelines in consideration of sanctions

Agenda	Alignment with international development organizations	Objectives	Priorities	Implementation guidelines	Feasible stage
Sustainable cooperation system	SDG 3,17 WHO UHC	Promoting Health Medical Platform in Korean Peninsula	Construct and operate an online networking system	- Improving the openness and enhancing accessibility of an online communication space about Health and Medical Platform in Korean Peninsula - Operating an integrated platform with a chat function	1–2
			Promoting small group meetings by division	- Selecting policy managers by division - Regularization of experts working meeting	1–2
			Assess and improve platform performance	- Select the platform performance indicators: integrated and standardization of data construction, collect content and share - Establishing a step-by-step setup plan and systematic implementation of the platform	1–2
		Systematization of planning, monitoring and evaluation	Planning and evaluation based on international organization-government-private partnership	- Discover and measure indicators for each strategy and activity based on consortia - Establishment of an evaluation system based on consortia	1–2
			Publish regular report about monitoring SAP performance status	- Uploading posts on indicators by strategy and activity - Publication of annual reports	1
			Evaluation and improvement based on international health standards	- Customized contextualization of OECD DAC evaluation criteria and adaptation - Drafting regular improvement measures based on the evaluation of international standards	1
		Laying the foundation for cooperation	Implementation of the Inter-Korean Health Medical Cooperation Act and securing funding for the cooperation system	- Settle contract about an inter-Korean health and medical agreement and support DPRK responsive legislation - Discussion and revision of the ‘Inter-Korean Cooperation Fund Act’ (accumulating funds annually)	1–2
			Expansion of foundation for international cooperation including third countries	- Attracting joint international investment for economic development and infrastructure development - Establish Northeast Asian multilateral development including Korea, Russia, China, and Japan	2–3
			Unification of medical terms in Inter-Korean	- Publish an Inter-Korean medical terminology dictionary and conduct joint creation of inter-Korean health medical terminology database - Support DPRK to join the SNOMED CT	2–3

SDG = Sustainable Development Goal, WHO = World Health Organization, UHC = universal health coverage, OECD = Organization for Economic Co-operation and Development, DAC = Development Assistance Committee, DPRK = Democratic People’s Republic of Korea, SNOMED CT = International Systematized Nomenclature of Medicine Clinical Terms.

REFERENCES

1. Jeon WT, Kim SK. *Preparation of Health Community in the Korean Peninsula*. Seoul, Korea: Pakyounsa; 2018.
2. Ryu GC. Lessons from unified Germany and their implications for healthcare in the unification of the Korean Peninsula. *J Prev Med Public Health* 2013;46(3):127-33. [PUBMED](#) | [CROSSREF](#)
3. Kim SK, Noh JW, Lee YH, Kim YS. *Mid-Term Strategic Plan for Public Health and Medical Care Cooperation in the Korean Peninsula*. Seoul, Korea: Korea University Research Management System; 2022.
4. Choi M, Sempungu JK, Lee EH, Lee YH. Changes in contributions of age- and cause-specific mortality to the widening life expectancy gap between North and South Korea, 1990-2019: an analysis of the Global Burden of Disease Study 2019. *SSM Popul Health* 2023;23(101445):101445. [PUBMED](#) | [CROSSREF](#)
5. Lee EH, Choi M, Sempungu JK, Lee YH. Trends and patterns of North Korea’s disease burden from 1990 to 2019: results from Global Burden of Disease Study 2019. *PLoS One* 2022;17(11):e0277335. [PUBMED](#) | [CROSSREF](#)
6. Noh JJ. The current status in obstetrics in North Korea and strategies for establishing a better healthcare system. *Front Public Health* 2021;9:744326. [PUBMED](#) | [CROSSREF](#)
7. Ha S, Lee YH, Moon GS, Shim HJ, Jung PY, Kim SY, et al. Underestimated burden: non-communicable diseases in North Korea. *Yonsei Med J* 2019;60(5):481-3. [PUBMED](#) | [CROSSREF](#)
8. Ha SY, Cho YM, Kim SY. Recent trends of development assistance to North Korea: analysis focused on aid for healthcare sector. *J Peace Unification Stud* 2018;10(2):327-62. [CROSSREF](#)

9. Hyon CS, Nam KY, Sun HC, Garg R, Shrestha SM, Ok KU, et al. Package of essential noncommunicable disease (PEN) interventions in primary health-care settings in the Democratic People's Republic of Korea: a feasibility study. *WHO South-East Asia J Public Health* 2017;6(2):69-73. [PUBMED](#) | [CROSSREF](#)
10. Shin BK, Jeon WT. National Health Priorities under the Kim Jong Un regime in Democratic People's Republic of Korea (DPRK), 2012-2018. *BMJ Glob Health* 2019;4(Suppl 7):e001518. [PUBMED](#) | [CROSSREF](#)
11. Park JJ, Lim AY, Ahn HS, Kim AI, Choi S, Oh DH, et al. Systematic review of evidence on public health in the Democratic People's Republic of Korea. *BMJ Glob Health* 2019;4(2):e001133. [PUBMED](#) | [CROSSREF](#)
12. Seo BH. Korean Peninsula series: Inter-Korean dialogue - how can it be achieved for freedom, peace, and prosperity? <https://www.kinu.or.kr/pyxis-api/1/digital-files/dd1da885-8769-489c-97a6-3d94e14adedd>. Updated 2022. Accessed March 18, 2023.
13. World Health Organization. Health security. <https://www.who.int/health-topics/health-security>. Updated 2023. Accessed June 24, 2023.
14. Arsenault C, Gage A, Kim MK, Kapoor NR, Akweongo P, Amponsah F, et al. COVID-19 and resilience of healthcare systems in ten countries. *Nat Med* 2022;28(6):1314-24. [PUBMED](#) | [CROSSREF](#)
15. Haldane V, De Foo C, Abdalla SM, Jung AS, Tan M, Wu S, et al. Health systems resilience in managing the COVID-19 pandemic: lessons from 28 countries. *Nat Med* 2021;27(6):964-80. [PUBMED](#) | [CROSSREF](#)
16. Lee YH, Lee WJ, Kim YJ, Cho MJ, Kim JH, Lee YJ, et al. North Korean refugee health in South Korea (NORNS) study: study design and methods. *BMC Public Health* 2012;12(1):172. [PUBMED](#) | [CROSSREF](#)
17. Horton R. Offline: North Korea-the case for health diplomacy. *Lancet* 2017;390(10099):1016. [PUBMED](#) | [CROSSREF](#)
18. Park JJ, Shin HY, Atun R. Global health engagement with North Korea. *BMJ* 2018;361:k2547. [PUBMED](#) | [CROSSREF](#)