

**The National Council for the Recovery of Ukraine from the
Consequences of the War**

Draft Ukraine Recovery Plan

Materials of the “Healthcare” working group

July 2022

TABLE OF CONTENTS

| | |
|--|-----------|
| Introduction | 2 |
| Priority 1. Strengthening policies and institutions of the national healthcare system to guide the recovery process | 5 |
| Priority 2. Ensuring financial stability of the healthcare system | 17 |
| Priority 3. Restoration and transformation of the healthcare facility network | 23 |
| Priority 4. Health services development to meet the needs of people (including IDPs, war veterans) caused by the war | 30 |
| Priority 5. Consolidation and strengthening of human resources of the healthcare system | 39 |
| Priority 6. Strengthening of the public health system and preparedness for health emergencies | 56 |
| Priority 7. Developing the electronic healthcare and strengthening of cybersecurity | 79 |
| Priority 8. Strengthening national- and local-level quality management system | 89 |
| Priority 9. Recovering pharmaceutical sector, improving accessibility and proper use of medicines | 98 |

Situation in the healthcare sector before the war

Preservation, protection and promotion of public health are among the key priorities of the state that should be implemented by a healthcare system. Russia's full-scale invasion of Ukraine has put a critical strain on the national healthcare system associated not only with massive destruction of healthcare facilities, but also with increase of demand for various types of medical care and services that were not priority before the war among the citizens. The situation is further exacerbated by significant migration of the population and healthcare workers. Rebuilding a healthcare system that takes into account the current realities would contribute to the effective restoration of human resources, which is the foundation for rehabilitation of the country from the consequences of the war. Rebuilding destroyed healthcare infrastructure is not an end of the actions proposed below in itself. Recovery efforts should primarily focus on transforming the healthcare system in accordance with the needs of citizens and available public resources so that it is able not only to provide citizens with quality and timely medical care, but is also prepared to respond to health emergencies of various nature.

Key performance indicators of the healthcare system before the war

Live expectancy (according to a 2020 study) was 76 years for women and 66 years for men, which was one of the lowest levels in Europe.

Healthcare expenditures in Ukraine were growing annually, but were still not close to the global levels in terms of GDP proportion. For example, total expenditures on the Programme of Medical Guarantees (the PMG) in 2021 amounted to approximately 2.4% of GDP. At the same time, the level of patients' out-of-pocket payments was high: 49% of current healthcare costs.

Ukraine had excessive capacities in the hospital sector with the number of hospitals almost twice higher compared to that in the countries of the WHO European Region (42 hospitals per 1 million persons). At the same time, Ukrainian hospitals provided care of lower intensity: At least 20% of all inpatient cases could be managed in outpatient settings, and 57% of inpatient bed days could not be justified by the need for 24-hour inpatient hospital stay.

Non-communicable diseases (NCDs) were a major cause of premature mortality in Ukraine: NCDs accounted for 6 out of 10 main causes of death, 9 out of 10 causes of premature deaths and 84% of all annual deaths.

Major reforms implemented over the last years:

The full-scale transformation of the system started with the adoption of the Law of Ukraine "On the State Financial Guarantees of Healthcare Services to the Population" in 2017. In April 2018, a single national purchaser of healthcare services, the National Health Service of Ukraine (the NHSU), was established. Simultaneously, the process of healthcare facilities autonomization was launched, changing the principles of managing the facilities by transforming them from municipal budget-funded institutions into municipal non-profit enterprises, which laid the foundation for the improvement of transparency and accountability and, as a result, contributed to combatting corruption in the form of hidden patients' payments and irrational use of investment resources and current funds. In July 2018, the NHSU contracted the first autonomous primary healthcare providers on the basis of the capitation rate — amount of payment for the provision of healthcare services to one patient, laid down at the legislative level. People were given the right to independently choose their physicians. Public and private primary healthcare providers were given equal opportunities for the provision of services under the PMG. In April 2019, the NHSU began administering reimbursement of the costs of e-prescribed medicines. As of 18.02.2022, 444 medicines were subject to reimbursement under the Affordable Medicines Programme.

The reform of specialized healthcare began on 1 April 2020: most public expenditures on healthcare were centralised and integrated into the Programme of Medical Guarantees (the PMG) consisting of service (benefit) packages that define healthcare services and medicines which are paid for by the NHSU. There was a shift from item-by-item budgets of healthcare facilities to performance-based payments (i.e. payment for actually treated cases or the population assigned) in the autotomized facilities contracted by the NHSU. Thus, instead of following the infrastructure of healthcare facilities, money started to "follow the patient".

The COVID-19 pandemic exposed weaknesses of the public health and emergency response system, and, in some cases, a lack of national, regional and local emergency preparedness plans and procedures. The Ministry of Health of Ukraine (the MoH) established a Public Health Center, which marked the beginning of the transformation

of the public health system in the country. Over the past four years, Ukraine implemented a number of large-scale measures to digitalise the healthcare sector.

Situation during the war

The healthcare sector is one of the most affected by the war. As of 21.06.2022, 118 healthcare facilities were totally destroyed and 633 healthcare facilities were partially destroyed (2% to 90% of destruction). The pre-estimated damages amount to almost UAH 35 billion.

The Programme of Medical Guaranteed does not fully represent the priority services packages that become of paramount importance during the war and the post-war period (treatment of injuries and burns, rehabilitation, mental health services). State healthcare programmes do not account for the losses of the healthcare system, damages incurred and the necessary changes of healthcare priorities (list of healthcare services and health conditions).

The healthcare system is also under particular pressure due to the migration of the population (approximately 7 million Ukrainians were forced to leave their homes), as well as the loss of healthcare professionals and their movement. 12 healthcare professionals have been killed and 47 have been wounded during the war. 2,372 employees of emergency medical care centres are currently in the occupied territories. 2,273 healthcare professionals have moved abroad (0.5 of the total number of healthcare professionals in the country), 1,714 physicians and 1,095 nurses changed their places of work due to the war. The lack of human resources and organisational capacities of the healthcare system for the provision of rehabilitation and mental health services exacerbates the situation with satisfying the needs of the citizens for high-quality and accessible services.

Future priorities

The main goal of the Health Recovery Plan is to restore and develop the healthcare system ensuring better quality and accessibility of services to meet the needs of citizens.

To achieve this goal, the Health Recovery Plan provides for:

1) **Strengthening policies and institutions of the national healthcare system to guide the recovery process** that envisages implementing universal approaches and governance tools that ensure professional autonomy, sustainability and capability of national health institutions; creating an effective system for intersectoral cooperation to ensure a unified national approach to healthcare based on approved evidence-based policies; creating a system for effective management of healthcare facilities that allows for public accountability and supervision.

2) **Ensuring financial stability of the healthcare system** by introducing flexible financing methods in the healthcare sector, expanding the programme of medical guarantees, developing the voluntary health insurance market;

3) **Recovering and transforming the healthcare facility network** in accordance with the approaches to hospital planning aimed at providing essential healthcare services by expanding primary health care, implementing multidisciplinary team model at the primary healthcare level, implementing long-term agreements between the National Health Service of Ukraine and healthcare facilities.

4) **Strengthening healthcare services to meet specific war-related needs of the population (including IDPs and veterans)**, which includes developing rehabilitation care, mental health services that are close to individuals and communities, trauma, orthopaedic, burn care and intensive care services, improving the benefit packages of the medical guarantees programme to take into account the needs of war veterans and survivors of the hostilities;

5) **Strengthening and reinforcing healthcare workforce** by implementing the efforts aimed at integrating health education and research in the current international context; planning and implementing healthcare system staffing in terms of staff number and structure in accordance with the needs of the system; creating conditions for ensuring the professional well-being of healthcare workers.

6) **Strengthening public health system and preparedness to healthcare emergencies**, which envisages ensuring the functioning of a capable public health system aimed at preserving and promoting public health, disease prevention and timely detection of and response to health challenges; creating a coordination mechanism within the public health system; ensuring the functioning of the national blood system to guarantee

equitable and timely access of the patients to safe and high-quality components of donor blood in sufficient quantities.

7) **Developing e-health system and reinforcing cybersecurity** by developing a single medical information space featuring national and cross-border interoperability and end-to-end processes and services; providing infrastructural and technical conditions for the provision of quality medical services using information and communication systems at all the levels; creating friendly and transparent mechanisms for user access to the comprehensive data on their health and management of this information.

8) **Strengthening national- and local-level quality management system**, which involves developing and implementing quality assurance system elements in healthcare at the national and healthcare facility level.

9) **Recovering pharmaceutical sector, improving accessibility and proper use of medicines** by harmonizing the state policies on access to medicines and medical devices; establishing an independent agency for health technology assessment as the single expert body that ensures validity and evidence base for the selection and evaluation of the effectiveness of medicines and medical devices; facilitating the development of the pharmaceutical industry with a focus on fostering investment in R&D, localisation and other methods for exploring new technologies of the production of medicines and medical devices, promoting organization of clinical trial in Ukraine, strengthening control over intellectual property rights, full implementation of the Bolar exemption in the national legislation (allowing to register generics in advance of the expiration of the originators' patents) and other state-of-art tools aimed at reinforcing the sector; ensuring public access to effective medicines by establishing a strict regulatory system in Ukraine in line with those existing at the international level.

Analysis area (of a specific component) within the direction:
Priority 1: Strengthening policies and institutions of the national healthcare system to guide the recovery process

1. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|---|
| 1. Key challenges | <ul style="list-style-type: none"> Particularly high burden on the healthcare system and key institutions due to the growing demand for healthcare services during the war The need to adapt and temporarily change approaches, methods of implementing state health policy, regulation of the healthcare system in the absence of reliable baseline data during the war Insufficient capacities and lack of clear division of roles of key healthcare institutions at national, regional and local level Insufficient financial capacity of communities to perform the facility owner's functions during the war and in the post-war period Weak participation of civil society in the management of the healthcare system, creation of parallel logistics systems and decision-making centres Low level of private sector involvement Weak intersectoral coordination with other areas |
| 2. Key possibilities | <ul style="list-style-type: none"> Acceleration of important political decision-making and adoption of healthcare legislation Improvement of intersectoral coordination to face the challenges posed by the war Engagement of international expertise into recovering/building a qualitatively new healthcare system Consolidation of the community and strengthening partnerships with the civil society and private sector in all governance areas of the healthcare system, significant demand for the transparency and accountability of healthcare facilities and institutions Radical review of the system for the regulation of healthcare activities, complete eradication of outdated rules and procedures, maximum harmonisation of the legislative framework in accordance with the EU requirements. |
| 3. Key limitations | <ul style="list-style-type: none"> Lack of relevant and trustworthy data for strategic and operational decision-making, intensive dynamics of changes in the basic parameters of the population, infrastructure and healthcare needs, challenges in creating scenarios, assumptions and models of recovery and development Lack of international expertise for strengthening healthcare policies and institutions during armed conflicts of similar scale Lack of human resources for the implementation of policies and decisions made |

2. Goals, tasks and stages of the Recovery Plan within the direction “Strengthening policies and institutions of the national healthcare system to guide the recovery process”

2.1. Goals aimed at resolving identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|--|----------------------------------|---------------------------------------|---------------------------------------|
| 1. Identified problem to be resolved in the relevant analysis area The healthcare system of Ukraine is currently under immense pressure due to the war. The Ministry of Health of Ukraine, the NHSU and other national and regional healthcare authorities are resolving challenging problems on a daily basis in order to ensure responding to new needs for services caused by the war, including the delivery of services in the temporarily occupied territories and providing for the specific needs of people affected by the hostilities. This requires making quick political and regulatory decisions with insufficient data and information. Managing the recovery plan requires consolidation of efforts by the Ministry of Health of Ukraine and other authorities responsible for the development and implementation of healthcare policy in order to ensure the operational management, coordination and monitoring of the recovery process. | | | |

The lack of intersectoral coordination is a traditional weakness of healthcare system management in Ukraine, which is particularly true for issues requiring multi-sectoral solutions and interventions at national and local levels. This includes a number of public health issues such as emergency preparedness and response, providing for the social needs of vulnerable populations and their specific healthcare needs, including the ones related to HIV, tuberculosis, etc. These problems have been exacerbated by the war, particularly for internally displaced persons.

At the regional level, communities face new challenges due to the lack of financial resources, which interferes with their ability to properly fund healthcare facilities and ensure required oversight of local response efforts.

In order to improve the engagement of private sector, political decisions should also be made and regulatory acts and efficient mechanisms should be adopted, since the involvement of the private sector, as well as its experience and resources, may become an additional resource for the healthcare system.

| | | | |
|--|--|--|---|
| Goal to be achieved to solve the issue during each stage | <ul style="list-style-type: none"> ● Ensure the national-level solution to the issue of the functioning of the healthcare system in the temporarily occupied territories of Ukraine ● Adopt the Law on amendments to certain laws and regulations of Ukraine on improving the provision of medical care (r. No. 6306) to allow for changing the approaches to creation of a capable network of healthcare facilities and regionalization of medical and rehabilitation care provided to the population | <ul style="list-style-type: none"> ● Strengthen the capacity of the healthcare central executive body in development of evidence-based healthcare policies ● Improve data collection mechanism for all medical and operational data generated during health services provision, and for important information on citizens' life activities. ● Develop a new model for programming and funding science and research in the healthcare system. <ul style="list-style-type: none"> - Ensure legal regulation of the transformation of interaction between the institutes of the National Academy of Medical Sciences of Ukraine and the MoH in accordance with best international practices and objectives for the development of a new model of programming and funding health science, education and research. - Take into account, at the policy level, the peculiarities of functioning of the health system in the areas of Ukraine non-government controlled as of 24 February 2022. ● Develop, approve and implement the National Health Strategy of Ukraine ● Develop and implement a nationwide platform for monitoring, evaluation and review of the National Health Strategy of Ukraine ● Ensure legal regulation of the functioning of the oblast units of the platform for monitoring, evaluation and | <ul style="list-style-type: none"> ● Review the programming and funding models for all the healthcare system components, including staff training, research and development, public health, payment for medical services and medicines, based on the healthcare financing reform launched in 2017–2022; ● Evaluate the National Health Strategy of Ukraine ● Improve the implementation of policies aimed at universal health coverage ● Review the "Concept for the development of primary healthcare and rehabilitation" in the framework of expanding and optimizing the healthcare services model ● Conduct regular evaluations and studies to measure health system effectiveness |
| 1. Restoring, developing and reforming the healthcare system based on approved evidence-based policies that take into account the needs of the population during martial law and in the post-war period | | | |

| | | | |
|---|--|--|---|
| | | <p>review of the National Health Strategy of Ukraine.</p> <ul style="list-style-type: none"> ● Ensure a system for monitoring policy implementation based on performance indicators. ● Ensure providing feedback on healthcare policy implementation services to public authorities | |
| Risks related to the goal achievement | Lack of political will, underfunding, active hostilities | Limited funding; understaffing; active hostilities, impossibility of long-term planning because of constant disruptions | Limited funding; understaffing |
| Quality goal achievement indicator | The draft law is adopted, the legislation is amended | <p>The legislation is amended</p> <p>The National Health Strategy of Ukraine is adopted</p> <p>Monitoring system is implemented</p> | <p>The legislation is amended</p> <p>The effectiveness is assessed</p> |
| Goal to be achieved to solve the issue during each stage 2. Implementing universal governance approaches and tools that ensure professional autonomy, sustainability and capacity of national healthcare institutions | <ul style="list-style-type: none"> ● Strengthen the capacity of the MoH of Ukraine as the manager of the national healthcare system during wartime ● Create a mechanism for coordination of 2022–2032 Ukrainian Healthcare System Post-War Recovery Plan ● Ensure stable functioning of the National Health Service of Ukraine during wartime ● Strengthen the cooperation with regional healthcare departments and local authorities, particularly by means of clarifying roles and responsibilities of the national, regional and local healthcare levels ● Assign the regional health departments the functions and responsibilities related to development and operation of a capable hospital network and a primary healthcare providers' network. | <ul style="list-style-type: none"> ● Strengthening the MoH's capacity as a national health system governing authority through development of evidence-based policies and intersectoral cooperation. <ul style="list-style-type: none"> - Review the model of interaction of the MoH of Ukraine with the expert community, non-governmental agencies and private sector for their participation in healthcare policy making - Develop the procedures for interaction in the healthcare system based on data and involvement of stakeholders - Develop and implement an institutional development plan for the MoH ● Conduct an evaluation of the activities and ensure institutional strengthening of the National Health Service of Ukraine as the national strategic procurement agency. <ul style="list-style-type: none"> - Review the model of interaction of the NHSU with the expert community, non-governmental agencies and private sector for their participation in development of the PMG | <ul style="list-style-type: none"> ● Continue the institutional development of the MoH, the NHSU and other key national agencies ● Strengthen the role of regional and local health departments in development and implementation of local health policies and objectives |

| | | | | |
|--|---------------------------------------|--|--|--|
| | | | <ul style="list-style-type: none"> - Review the model of interaction between the NHSU and HCFs to introduce the practice of payment tariffs agreement - Gradually reduce the share of payment for hospital costs from global budgets and, accordingly, increase the share of payment for a case - Continuously update and improve the costing methodology for the formation of medical care tariffs ● Strengthening the accountability of the NHSU to the Government and the public ● Strengthen the cooperation with regional healthcare departments and local authorities, particularly by means of clarifying roles and responsibilities of the national, regional and local healthcare levels ● Ensure strengthening of human, material and technical capacities of the healthcare structural subdivisions of local state administrations ● Ensure regulatory and legal support of the coordination and activities of healthcare structural subdivisions for the purposes of effective cooperation with the MoH and self-governing bodies in the implementation of state healthcare policy ● Ensure the operation of Medical Procurement of Ukraine State-Owned Enterprise as a purchasing hub by using up-to-date procurement tools and methodologies at the national and regional level. | |
| | Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| | Risks related to the goal achievement | Lack of understanding of such a way of solving problems by the political circles, underfunding, active hostilities | Limited funding; understaffing; active hostilities | Limited funding; understaffing; active hostilities |

| | Quality goal achievement indicator | The draft law is adopted, the legislation is amended | The national institutions are capable | |
|--|---|--|--|---|
| | Goal to be achieved to solve the issue during each stage 3. Having an effective system of intersectoral cooperation in place to ensure nationwide approach to addressing healthcare issues | <ul style="list-style-type: none"> • Strengthen coordination between institutions involved in healthcare and social decision-making at all management levels in order to ensure a harmonised and efficient approach to solving the problems faced by the population during martial law • Create a coordination council for healthcare system recovery, which would include, on equal footing, the representatives of: The Verkhovna Rada of Ukraine; the Office of the President of Ukraine; the MoH; the NBSU; scientific and educational state-owned and private institutions; civil society sector; donor organizations; the Cabinet of Ministers of Ukraine (Ministries). • Create an intersectoral platform for the development and implementation of healthcare policies requiring intersectoral planning and decisions | <ul style="list-style-type: none"> • Strengthen coordination mechanisms between institutions involved in healthcare and social decision-making at all the management levels in order to ensure a harmonised and efficient approach to meeting the needs of vulnerable populations - Ensure participation in the development and implementation of the state policy for chemical safety and management of chemicals - Adopt the Draft Law "On Assisted Reproductive Technologies" - Ensure an effective intersectoral approach to resolving healthcare issues in the territories with different levels of healthcare services disruption and ongoing conflict or areas that are temporarily not government-controlled, taking into account the number of IDPs and returning persons, the number of healthcare professionals who keep working at healthcare facilities or in the region, the specificities of the transition from military to civilian management and the use of healthcare facilities, etc. | <ul style="list-style-type: none"> • Improve the current mechanism of intersectoral cooperation based on "Health in All policies" approach |
| | Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2028 |
| | Risks related to the goal achievement | Lack of understanding of ensuring intersectoral cooperation in the field of healthcare in such a way by the political circles, underfunding, active hostilities | Limited funding; understaffing; active hostilities | Limited funding; understaffing; active hostilities |
| | Quality goal achievement indicator | The draft law is adopted, the legislation is amended | <ul style="list-style-type: none"> • Governmental decision-making is based on "Health in All Policies" approach • Clear intersectoral health cooperation mechanism is functional | |

| | | | |
|--|---|--|--|
| | <p>Goal to be achieved to solve the issue during each stage</p> <p>4. Establishing a system for effective management of healthcare facilities that ensures accountability to and oversight by the public</p> | <ul style="list-style-type: none"> ● Complete changes of the regulatory framework concerning the operation of supervisory boards of healthcare facilities, particularly the ones related to the composition of the boards, procedures for appointment and rotation, and their functions and responsibilities ● Improve the mechanisms for the management of hospital districts and rules for the establishment of an efficient network of facilities ● Develop and implement national standards/guidelines, create an effective healthcare facilities' network taking into account the existing demographic and infrastructural needs of each region in health care ● Develop mechanisms for coordination and cooperation between local authorities and self-governing bodies in the planning, development and operation of the healthcare facilities' network ● Identify the role and status of healthcare facilities in hospital districts to build a capable health facilities' network <ul style="list-style-type: none"> ● Improve and regulate licensing criteria and mechanisms ● Develop the concept for accreditation of healthcare facilities ● Create the possibility of receiving a permit ● Update the lists of equipment and provide for their regular revision ● Develop a system for efficient control over the activities of healthcare facilities ● Defining the criteria for monitoring and control of healthcare facilities, including accreditation criteria, performance and quality indicators, etc. ● Introduce a requirement for the preparation and publication of reports corresponding to the public sector format standards by municipal healthcare facilities ● Support engagement of patient organizations, local community and private sector in the governance of healthcare facilities and measurability of the impact of initiatives taking into account the introduction of mechanism to prevent conflict of interest ● Create digital services of public accountability to enable public and patient oversight of availability and quality of medical services ● Create an open registry of programmes for the provision of medicines for compassionate use and monitor their implementation in order to ensure informing the healthcare sector and the public and provide for control ● Create an application within the eHealth system to provide physicians with detailed information on clinical studies which are planned or being held in Ukraine in order to enable them to engage patients in appropriate international | |
|--|---|--|--|

| | | | | |
|--|--|---|--|---|
| | | | clinical studies of innovative medicines, medical devices, etc. | |
| | Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2024 | January 2026 – December 2028 |
| | Risks related to the goal achievement | Lack of understanding of the necessity of creating supervisory boards at healthcare facilities by the political circles, underfunding, active hostilities | Limited funding; understaffing; active hostilities | Limited funding; understaffing; active hostilities |
| | Quality goal achievement indicator | The draft law is adopted, the legislation is amended | <ul style="list-style-type: none"> 100% of municipal healthcare facilities separated the positions of medical director and administrator 90% of municipal healthcare facilities established supervisory boards for the new management system 90% of municipal healthcare facilities prepare and publish reports corresponding to the public sector format standards | |
| | Goal to be achieved to solve the issue during each stage 5. Harmonizing Ukrainian legislation with relevant EU <i>acquis</i> | <ul style="list-style-type: none"> Ensure the compliance with the requirements of EU-Ukraine Association Agreement on the harmonization of healthcare legislation | <ul style="list-style-type: none"> Constantly update Ukrainian legislation in line with EU legislation | <ul style="list-style-type: none"> Facilitate high-level consultations on the compliance with/implementation of EU Directives in the area of healthcare and related areas that were not included in the scope of the Association Agreement Facilitate legislative initiatives for implementation of defined EU regulations into Ukrainian legislation |
| | Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2028 |
| | Risks related to the goal achievement | Lack of understanding of the necessity of ensuring the harmonisation of healthcare legislation by the political circles, underfunding, active hostilities | Limited funding; understaffing; active hostilities | Limited funding; understaffing; active hostilities |
| | Quality goal achievement indicator | <p>Amendments to the legislation aimed at harmonization with EU <i>acquis</i> are made, specifically:</p> <ul style="list-style-type: none"> Article 21 of Council Recommendation 2003/488/EC of 18 June 2003; Article 64, Annex V of Regulation (EC) No 1331/2008; Article 64, Annex V of Regulation (EC) No 1333/2008; Article 64, Annex V of Commission Regulation (EU) No 231/2012; | | Amendments to the legislation aimed at harmonization with EU <i>acquis</i> are made taking into account the reviews of the EU <i>acquis</i> |

- Article 64, Annex V of Commission Regulation (EU) No 234/2011;
- Article 64, Annex V of Regulation (EC) No 1334/2008;
- Article 64, Annex V of Regulation (EC) No 2065/2003;
- Article 64, Annex V of Commission Regulation (EU) No 872/2012;
- Article 64, Annex V of Commission Regulation (EU) No 873/2012;
- Article 64, Annex V of Regulation (EC) No 1332/2008;
- Article 64, Annex V of Regulation (EC) No 396/2005;
- Article 64, Annex V of Commission Regulation (EC) No 2023/2006;
- Article 64, Annex V of Council Directive 82/711/EEC;
- Article 64, Annex V of Council Directive 85/572/EEC;
- Article 64, Annex V of Commission Decision 2010/169/EU;
- Article 64, Annex V of Council Directive 84/500/EEC;
- Article 64, Annex V of Commission Directive 2007/42/EC;
- Article 64, Annex V of Commission Regulation (EC) No 1895/2005;
- Article 64, Annex V of Commission Regulation (EC) No 450/2009;
- Article 64, Annex V of Commission Regulation (EC) No 10/2011;
- Article 64, Annex V of Commission Directive 93/11/EEC;
- Article 64, Annex V of Commission Regulation (EC) No 284/2011;
- Article 64, Annex V of Regulation (EC) No 258/97;
- Article 64, Annex V of Directive 1999/2/EC;
- Article 64, Annex V of Directive 1999/3/EC;
- Article 64, Annex V of Commission Regulation (EC) No 282/2008;
- Article 64, Annex V of Regulation (EC) No 396/2005;
- Article 342, Annex XXVII of Council Directive 2013/59/Euratom;
- Article 424, Annex XL of Council Directive 83/477/EEC, Council Directive 91/382/EEC, Directive 2003/18/EC;
- Article 424, Annex XL of Directive 2004/37/EC;
- Article 424, Annex XL of Directive 2000/54/EC;
- Article 424, Annex XL of Council Directive 98/24/EC;
- Article 424, Annex XL of Directive 2003/10/EC;
- Article 420, Annex XL of Council Directive 92/29/EEC;
- Article 424, Annex XL of Directive 90/269/EEC;
- Article 428, Annex XLI of Directive 2004/23/EC, Commission Directive 2006/17/EC, Commission Directive 2006/86/EC;
- Article 428, Annex XLI of Directive 2004/23/EC, Commission Directive 2006/86/EC, Annex XLI of Directive 2004/23/EC;
- Article 428, Annex XLI of Directive 2002/98/EC, Commission Directive 2004/33/EC, Commission Directive 2005/62/EC;
- Article 428, Annex XLI of Directive 2002/98/EC, Commission Directive 2005/61/EC;
- Article 428, Annex XLI of Directive 2002/98/EC;
- Article 428, Annex XLI of Recommendation 2003/54/EC; Council Recommendation 2003/488/EC; Council

| | | | |
|--|--|---|--|
| | | <p>Recommendation 2001/458/EC; Council Recommendation 2007/C 164/01;</p> <ul style="list-style-type: none"> ● Article 368, Annex XXXII of Directive 2006/126/EC (updated Council Directive 91/439/EEC); ● Directive 2001/83/EC of the European Parliament and of the Council; ● Commission Delegated Regulation (EU) 2016/161; ● Regulation (EC) No 536/2014; ● Commission Implementing Regulation (EU) 2017/556 of 24 March 2017; ● Commission Delegated Regulation (EU) 2017/1569 of 23 May 2017; ● Regulation (EU) No 726/2004 ● Commission Directive 2005/28/EC of 8 April 2005 ● Regulation (EU) No 1901/2006 ● Regulation (EU) 2017/745 of the European Parliament and of the Council ● Regulation (EU) 2017/746 of the European Parliament and of the Council | |
| | <p>Goal to be achieved to solve the issue during each stage</p> <p>6. Improving healthcare system accountability and outcomes as a result of awareness and cooperation of the whole society</p> | <ul style="list-style-type: none"> ● Ensure the engagement of the civil society in development of the legislation and monitoring of its implementation ● Ensure the engagement of the private sector as a full participant of the health system and, therefore: <ul style="list-style-type: none"> ● Identify and develop a regulatory framework for implementation of an effective model of public-private partnership in the healthcare sector ● Adopt the amendments to the Law of Ukraine "On Concession" as regards peculiarities of concessions in healthcare sector | <ul style="list-style-type: none"> ● Strengthen public-private partnership in the healthcare sector under the defined directions ● Strengthen the engagement of the private sector as a full participant of the health system ● Simplify the procedure for physicians to start their private practices ● Develop and implement the mechanisms for the public accountability of the national authorities (the MoH, the NHSU, the Public Health Center, etc.) to the government and the population concerning the implementation of the policy and the use of allocated funds ● Ensure the development of the state policy in the field of the development of private healthcare sector as an independent participant of the single healthcare space ● Develop and approve the universal framework concession agreement for the healthcare sector <ul style="list-style-type: none"> ● Assess civil society engagement ● Assess the engagement of the private sector as a full participant of the health system ● Conduct analysis of starting private practices and amend regulatory acts on the basis of such analysis, if necessary ● Perform the monitoring of the public reporting mechanism and review the reporting format based on its results (if necessary) ● Regularly monitor the engagement of the private sector in the healthcare system ● Ensure evaluation of the implementation of a universal framework concession agreement in healthcare sector |

| | Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2028 |
|--|---|---|--|--|
| | Risks related to the goal achievement | Lack of understanding of the necessity of private sector engagement as an independent healthcare system actor by the political circles, underfunding, active hostilities | Lack of understanding of the necessity of private sector engagement as an independent healthcare system actor by the political circles, limited funding, understaffing | Lack of understanding of the necessity of private sector engagement as an independent healthcare system actor by the political circles Limited funding |
| | Quality goal achievement indicator | The adopted law and the amended legislation provide for the creation of new conditions for the establishment of public-private partnership and private sector engagement as an independent actor within the healthcare system | <ul style="list-style-type: none"> ● PPP legal framework is updated ● Healthcare sector concession is implemented ● Terms of the concession agreement are defined that are fair and mutually beneficial for investors and local authorities, including the responsibilities of the parties, the period of validity of the agreement and the guarantees of payment for the services provided by healthcare institutions on the basis of concession. ● The assessment of awareness of and satisfaction with healthcare services is performed on a quarterly basis, and its results are used as a source of data for policy adjustment | A new favourable climate for civil society engagement is created A new style of public-private partnership is introduced A new public reporting mechanism that allows for providing quality feedback is introduced |
| | Goal to be achieved to solve the issue during each stage 7. Establishing professional self-governance system for healthcare workers | | <ul style="list-style-type: none"> ● Adopt a law and related regulatory framework to regulate healthcare sector professional associations and therefore to: ● Adopt the Law on self-governance of health professions in Ukraine (comprehensive version) ● Extend the list of forms of healthcare services delivery, which are currently limited to labour relations and licensed individual entrepreneurs Provide for an opportunity to work on the basis of civil law contracts ● Ensure support of the functions defined for healthcare professional associations. ● Develop a regulatory framework for the involvement | Strengthen the mechanisms of professional associations' participation in the elaboration of the policies, development of the profession, quality improvement and performance of other healthcare system tasks |

| | | | | |
|--|---------------------------------------|---------------------------|--|--|
| | | | <p>of professional healthcare associations into resolving urgent issues concerning the management of the sector in accordance with the current legislation</p> <ul style="list-style-type: none"> ● Engage professional healthcare associations in the work of commissions, expert and working groups, as well as standing or temporary advisory and other subsidiary bodies of the MoH. | |
| | Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| | Risks related to the goal achievement | | <ul style="list-style-type: none"> ● Lack of understanding of the necessity of introducing professional self-government by the political circles, underfunding, active hostilities | Limited funding; understaffing; active hostilities |
| | Quality goal achievement indicator | | <ul style="list-style-type: none"> ● The necessary legal framework is created. Professional self-governance system for healthcare workers is established. ● A new healthcare self-government model is created that enables economic and professional actors to self-regulate their activities in the healthcare sector, namely: <ul style="list-style-type: none"> ● Actively participate in the development of healthcare policy; ● Expand the list of forms of healthcare services delivery; ● Develop healthcare professions; ● Ensure quality control and other healthcare system tasks; ● The procedure for starting a private practice is simplified | The legislation is amended |

Priority 2. Ensuring the financial stability of the healthcare system

| Impact of the war on the defined analysis area: | |
|---|---|
| Key challenges | <ul style="list-style-type: none"> Insufficient funding for healthcare to meet the needs of various groups of the population in health services, including additional needs arising from the war and hostilities Inefficient allocation of financial resources in healthcare, that may lead to underfunding or overfunding of certain services Programme of medical guarantees does not fully reflect the priority service packages that are of urgent importance during the war and in the post-war period (rehabilitation, mental health, etc.) Government programs do not take into account the losses of the healthcare system, the damages, the necessary changes in health care priorities (list of health services and conditions) Damage or destruction of health infrastructure, as well as loss of human resources, which restricts or prevents access to health care in areas that are or have been occupied, and areas affected by hostilities Limited funding for health care from non-governmental sources Inefficient funding mechanism for health and social services, which may lead to double funding or lack of funding for some services Inflexible payment systems under government programs, which may affect the quality and scope of health care provided in case of unforeseen events (military actions, natural disasters, humanitarian catastrophes, etc.) |
| Key possibilities | <ul style="list-style-type: none"> Implementation of international best practices in the health financing Introduction of flexible payment methods within the Programme of Medical Guarantees and procurement methods that will be based on the needs of the population in health care Rebuilding the health care infrastructure taking into account the approaches of hospital planning Significant reduction in the practice of informal payments for state-guaranteed health services under PMG Involvement of international experts in the health care recovery Improving coordination between stakeholders in health financing Creating an environment to involve the private sector in financing and providing health services Increase funding for the health care sector through non-governmental sources |
| Key limitations | <ul style="list-style-type: none"> Economic and social crisis caused by the full-scale war of the Russian Federation against Ukraine Unpredictable timing of the end of the war and the uncertain war impact on each region of the country Lack of additional state financial resources to cover additional health care needs Potentially insufficient institutional capacity of executive bodies to implement innovative solutions in the healthcare financing Lack of reliable and up-to-date data, as well as dynamic indicators that are constantly changing due to the impact of hostilities and the movement of population and human resources in the health care Uncertain and growing needs for health infrastructure reconstruction The need to restore health care in accordance with the modern standards and approaches |

2. Goals, tasks, stages of the Recovery Plan within the priority "Ensuring the financial stability of the health care system"

2.1. Goals aimed at resolving identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|--|-------------------------------------|--|--|
| | | | |

1. Identified problem to be resolved in the relevant analysis area

Preserving, protecting and promoting the health and well-being of citizens remain key priorities of the Ukrainian Government. In order to transform the health care system, the Government has been implementing health care reform since 2017, including the health financing. Starting from 2019, different types of health care and different types of health care providers (communal and private) were gradually included in the PMG.

However, the amount of funding for PMG remains quite low (does not correspond to the 5% of GDP declared by law), and national healthcare facilities have not been included in PMG, funding flows for health and social care have not been coordinated, and so on. In addition, there have been cases where the providers adjusted the scope of health services included in PMG, at their own discretion, forcing patients to pay in part for the care provided out of pocket. This somewhat hindered the implementation of the principle of reform "money follows the patient".

Due to the full-scale invasion of the Russian Federation, the health care system is undergoing significant changes that consist in damage or destruction of healthcare infrastructure, which limits or even prevents access to health care in the territories that are or have been occupied, and areas affected by hostilities. The losses from the war to the healthcare system are increasing every day, so it is important to respond quickly to the challenges that exist today and to ensure that measures are taken to help the healthcare system recover as soon as possible after the war. The war showed insufficient funding for healthcare, especially to cover additional healthcare needs; insufficient backup of material and technical resources. The filling of the healthcare budget and the expansion of the list of sources of filling is especially relevant given the martial law in the country and the conduct of hostilities. Addressing the above mentioned issues of health financing needs to consolidate the efforts of society and public authorities at the national, regional and local levels, as well as the support of the international community.

| | | | |
|--|---|--|--|
| <p>Goal to be achieved to solve the issue during each stage</p> <p>1. Ensuring financial protection to people when receiving state-guaranteed quality and affordable healthcare services; significantly decreasing the level of out-of-pocket payments and, thus, preventing limitation of demand and access to services and catastrophic costs in the event of illness</p> | <ul style="list-style-type: none"> ● Continue the implementation of healthcare reform and ensure public access to the healthcare ● Prepare proposals for the necessary amount of additional financial resources to cover additional health care needs from all possible sources ● Introduce flexible methods of health financing ● Gradually rebuild the healthcare infrastructure based on an assessment of the needs of the population and the network of facilities in each oblast | <ul style="list-style-type: none"> ● Increase public spending on health care: <ul style="list-style-type: none"> - Ensure funding for PMG in the amount of not less than 5% of GDP of Ukraine - Update PMG annually - Gradually include state, sectoral healthcare facilities and institutions of the National Academy of Medical Sciences of Ukraine (NAMS) in PMG - Develop and implement the mechanisms to attract non-state funds to finance healthcare - Gradually include the cost of medicines, medical devices, including rehabilitation aids and consumables in the tariffs for health services ● Spend public resources in an effective way: | <ul style="list-style-type: none"> ● Increase public spending on health care to the level of average European indicators ● Ensure financing of all healthcare facilities (except healthcare facilities of the Armed Forces of Ukraine) at the expense of PMG ● Develop and implement a mechanism for attracting non-state funds to finance healthcare, taking into account priority services and conditions ● Create a state reserve fund to cover healthcare expenses that arise as a result of unforeseen events (war, natural disasters, humanitarian disaster, etc.) ● Ensure the integration of financial flows between health and social services ● Develop the mechanisms for financing long-term |
|--|---|--|--|

| | | | |
|--|--|--|--|
| | | <ul style="list-style-type: none"> - Conduct research on the level of informal payments for priority types of health care - Strengthen monitoring and improve the system of penalizing health care providers for informal patient payments - Introduce control over financial and budgetary discipline in the healthcare facilities ● Take measures on the implementation of a clearer and more transparent process for the development, expansion and approval of PMG: - Change the PMG development procedure (review of PMG, calculation of tariffs, financing mechanisms, public discussion, etc.) - Involve healthcare facilities in the PMG development ● Extend the list of services that are paid for by the NHSU based on healthcare services actually provided ● Improve the payment methods in the framework of the PMG: - Develop and implement effective payment methods for health services for internally displaced persons - Develop and implement effective methods of payment for health services, including the performance-based payments' indicators | <p>care services based on the developed model of providing such services with the involvement of the private sector</p> <ul style="list-style-type: none"> ● Expand the role of VHI |
|--|--|--|--|

| | | | |
|--|--|---|--|
| | | <ul style="list-style-type: none"> - Include the utility costs and other elements to the PMG tariffs - Improve the payment methods in the framework of the PMG, using a mixed system concerning health service readiness despite of the quantity of patients, including burns, polytrauma and disaster medicine ● Implement multi-year contracts between the NHSU and the healthcare facilities according to their role in the capable network ● Provide additional revenues to the health care system through the introduction of taxation of sugar-sweetened beverages. ● Develop the market for voluntary health insurance (VHI), including complementary: <ul style="list-style-type: none"> - Ensure access of insurers to medical data of insured persons and persons who intend to enter into a VHI agreement, with their consent - Introduce credit benefits for the companies in order to stimulate VHI - Develop and adopt a Law on the development of the VHI ● Update the approval procedures and the list of paid services provided by healthcare facilities outside the PMG | |
|--|--|---|--|

| | | | |
|---------------------------------------|---|---|---|
| | | <ul style="list-style-type: none"> • Rebuild infrastructure and provide access to health services for lower-income households: • Assess the cost of capital investment to reconstruct the damaged (lost) healthcare infrastructure based on a simulated network | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> • continuation of the war on the territory of Ukraine • lack of state budget resources to meet the needs of the population • Lack of understanding in the political environment of the need to increase funding for health care and relevant decision-making initiatives • low capacity of executive bodies (central and local) • lack of reliable data sources for economically sound calculations • the emergence of unpredictable factors that will significantly affect the simulation results • lack of consent among stakeholders | <ul style="list-style-type: none"> • continuation of the war on the territory of Ukraine • lack of state budget resources to meet the needs of the population • Lack of understanding in the political environment of the need to involve the private sector as a full participant in the health care system and relevant decision-making initiatives • lack of reliable data sources for economically sound calculations • the emergence of unpredictable factors that will significantly affect the simulation results • lack of consent among stakeholders | <ul style="list-style-type: none"> • continuation of the war on the territory of Ukraine • lack of state budget resources to meet the needs of the population • Lack of understanding in the political environment of the need to involve the private sector as a full participant in the health care system and relevant decision-making initiatives • lack of reliable data sources for economically sound calculations • the emergence of unpredictable factors that will significantly affect the simulation results • lack of consent among stakeholders • low desire of the population to participate in the VHI |
| Quality goal achievement indicator | <ul style="list-style-type: none"> • the network of healthcare facilities has been partially recovered • financing of facilities is based on the results of their activity • PMG packages have been updated in terms | <ul style="list-style-type: none"> • the annual amount of PMG financing is at least 5% of GDP • the network of healthcare facilities has been partially recovered • various resources have been | <ul style="list-style-type: none"> • the annual amount of PMG financing is at least 5% of GDP • various resources have been consolidated to finance the health care system |

| | | | |
|---|--|--|--|
| | <p>of rehabilitation services (including provision of prosthetic devices), mental health services, treatment of injuries, etc.</p> | <p>consolidated to finance the health care system</p> <ul style="list-style-type: none"> ● tariffs for PMG are economically justified ● the financing mechanism within the PMG, which includes performance indicators has been implemented ● PMG has been updated in accordance with the needs of the population and state priorities ● the level of informal payments for priority types of health care has been reduced ● new approaches for VHI have been introduced | <ul style="list-style-type: none"> ● PMG has been updated in accordance with the needs of the population and state priorities ● tariffs for PMG are economically justified ● the financing mechanism within the PMG, which includes performance indicators has been implemented ● the procedure for introducing paid services has been updated ● the level of informal payments for priority types of health care has been reduced ● the level of informal payments for priority types of health care has been significantly reduced |
| <p>The total amount of the need for financial resources to achieve the goal</p> | <ul style="list-style-type: none"> ● PMG 2022: UAH 157.3 billion (approved by the Law of Ukraine "On the State Budget of Ukraine for 2022") | <ul style="list-style-type: none"> ● For the healthcare system in 2023 (2.3% + 1.5% of forecast GDP): UAH 116.3 billion ● For the healthcare system in 2024 (5% + 1.5% of forecast GDP): UAH 210.0 billion ● From 2025, at least 6.5% of GDP will be spent on the healthcare system | <p>From 2026, at least 7% of GDP will be allocated to the healthcare system</p> |

Priority 2. Restoration and transformation of the healthcare facility network

1. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|---|
| Key challenges | <ul style="list-style-type: none"> • The network of healthcare facilities, especially the hospital sector, does not meet the needs of the population and the epidemiological situation in the country • Excessive and outdated health care infrastructure, which did not have time to reform in the pre-war period, requires significant resources for its maintenance • Despite the high expenses on the healthcare infrastructure, the quality of services remains at a low level and requires additional patient costs • The damage during the war to the infrastructure of healthcare facilities and the migration of specialists led to an increase in disparities in the provision of health care both in the regional dimension and in terms of types of health care • Migration processes caused by the war require an assessment of the health needs of the population, the development of flexible mechanisms for the provision of services and a review of the network of healthcare facilities that existed before the war • Territorial communities, as the owners of health care facilities, do not have sufficient information about the range of health services needed by the population, as well as the necessary resources for infrastructure restoration. Decisions of individual owners, isolated from the other territorial communities, on the restoration of health care facilities may lead to fragmentation of the system of healthcare services delivery and the creation of excess capacity • The reform of primary health care, which has achieved significant shifts and changes since 2017, requires the continued expansion of the integrated service delivery model and the introduction of flexible financing models |
| Key possibilities | <ul style="list-style-type: none"> • Centralization of management and planning of the health care network at the national and oblast levels • Involvement of international expertise in the reconstruction/construction and transformation of a qualitatively new network of health care facilities • Use of hospital planning experience across all areas • Drafts of legislative and regulatory acts regarding hospital planning have been developed • Potential increase in funding for capital expenditures from international sources |
| Key limitations | <ul style="list-style-type: none"> • The economic and social crisis caused by the full-scale war of the Russian Federation against Ukraine • Unpredictable timing of the end of the war • Lack of experience in the design and construction of health care facilities taking into account modern approaches and technologies • Lack of healthcare professionals, including healthcare workers and rehabilitation specialists to restore the health care network • Opposition to the transformation of networks of health care facilities • Opposition of some PHC specialists to expanding of their functions • Lack of opportunities and/or reluctance of primary care physicians to take on new responsibilities |

2. Goals, tasks, stages of the Recovery Plan within the priority "Restoration and transformation of the healthcare facility network "

2.1. Goals aimed at resolving identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032: |
|--|----------------------------------|---------------------------------------|--|
| 2. Identified problem to be resolved in the relevant analysis area | | | |

Ukraine suffered significant destruction of the health care infrastructure during the military aggression. However, in addition to the changes caused by the war, the health care system of Ukraine suffers from unsolved problems that existed before the war and continue to have a negative impact on the situation.

Despite the rapid changes and the introduction of new approaches in funding of primary and specialized health care in previous years, the network of health care facilities in Ukraine remains unreformed.

Ukraine has excess capacity in the hospital sector with almost twice as many hospitals compared to countries in the WHO European Region.

Ukraine has excessive capacities in hospital sector with the number of hospitals almost twice higher compared to that in the countries of the WHO European Region. Many of the hospitals are outdated, do not use modern technologies to a sufficient extent and have low capacity for providing intensive care in emergency situations such as stroke, myocardial infarction or severe injuries. While the multidisciplinary nature of hospitals can ensure a comprehensive set of services, higher quality and safety for patients, a significant share of the total number of hospitals are narrowly specialized hospitals (psychiatric/dependency, tuberculosis, infectious diseases and recreational facilities). There are almost no such hospitals in countries with more developed economies, since the best practice is their integration into multidisciplinary hospitals. Furthermore, many services offered by Ukrainian hospitals can be provided in primary healthcare settings, outpatient specialised healthcare settings in one-day facilities, or outside the healthcare system.

The processes of administrative and territorial reform and decentralization of healthcare facilities management feature some gaps in ensuring the capacity of territorial communities to manage the healthcare system at the local level. Upon obtaining greater authority, territorial communities represented by their leaders proved to be unprepared to manage the healthcare sector. This often leads to erroneous decisions concerning the development of healthcare facilities without regard to the needs and size of the population, healthcare safety, procurement of inappropriate equipment, construction works or establishment of new healthcare facilities. There is also a need for close cooperation between the territorial communities to support the healthcare facilities that provide services to their populations, which is currently a significant problem in practice. At the same time, there are large territorial communities with several or even dozens of healthcare facilities that are trying to develop them without interacting with other communities and healthcare management at the oblast level.

| | | | | |
|---|--|--|---|--|
| | | | | |
| <p>Goal to be achieved to solve the issue during each stage</p> <p>1. Improving people's health through the implementation of an effective integrated model that ensures balanced, evidence-based and continuous provision of safe and quality services.</p> | <ul style="list-style-type: none"> ● Provide continuous health and rehabilitation care in wartime conditions - Ensure the integration of some services currently provided through humanitarian assistance (short-term support for urgent needs) into expanded PHC services - Create mechanisms for the additional deployment of healthcare staff members (surge capacity) - mobile points (brigades) for the provision of PHC, taking into account the needs of the population for such assistance in war conditions, to implement their organizational support and staffing ● Identify additional needs of the population connected with the war ● Initiate health services according to the identified additional needs ● Bring the network of healthcare providers in line with people's needs and resources available - Develop national guidelines for the restoration of health care infrastructure at the regional level (including the use of eco-materials, renewable energy sources, implementation of energy efficiency, etc.) - Adopt comprehensive plans for the recovery | <ul style="list-style-type: none"> ● Increase the capacity of primary healthcare to address most of the patients' health issues, with special attention to the sphere of prevention of NCDs and support of patients with mental disorders and chronic diseases. - Expand the range of PHC services - Develop an expanded list of functions and the scope of activities of PHC nurses and implement them to the requirements of the contract with the National Health Service of Ukraine - Implement new approaches to the consultative process at the PHC level, including strengthening mental health services - Develop and implement a model of work of multidisciplinary teams at the PHC level. <ul style="list-style-type: none"> ● Prioritise prevention and early diagnosis services - Implement effective disease prevention programmes for the most common chronic diseases and healthy lifestyle programmes at the primary healthcare level - Develop national screening programs on the principles of evidence-based medicine | <ul style="list-style-type: none"> ● Strengthen PHC as one of the main components of the health care system ● Analyse the activity of PHC providers based on electronic medical records in a regular way ● Implement an expanded list of functions and the scope of activities of nurses at the PHC level to the requirements of the contract with the National Health Service of Ukraine - Provide a constant analysis of the interaction of PHC with the other levels of health care and developing appropriate solutions for integrated and complex services - Ensure integration of PHC, public health and social support services - Ensure constant improvement of the skills of PHC workers in determining the needs of patients in relation to their health and identifying risk factors for diseases - Ensure effective implementation of comprehensive prevention programs, as well as healthy lifestyle programs at the PHC level - Implement national screening programs for different age groups on the | |

| | | | |
|--|---|--|--|
| | <p>and transformation of regional health care networks (including PHC facilities, emergency services and hospitals), starting with war-affected areas.</p> <ul style="list-style-type: none"> • Develop the provision on vulnerable population groups (including IDPs) in the context of receiving health and rehabilitation care. | <ul style="list-style-type: none"> - Provide funding for national prevention programs • Bring the network of healthcare providers in line with people's needs and resources available: <ul style="list-style-type: none"> - Implement comprehensive plans for the recovery and transformation of regional health care networks (including PHC facilities, emergency services, and hospitals), starting with war-affected areas - Synchronise the transformation of hospital network with the optimization of PMG packages - Develop and start the implementation of the National Plan for the Transformation of the Hospital Network - Develop the concepts of university hospitals and national specialized centres for high-tech assistance (cardiac surgery, neurosurgery, transplantation, polytrauma, burn treatment) within the national network of healthcare facilities - Develop the sequence of actions for health care facilities to create the supply chains, logistics and procurement of medicines and | <p>principles of evidence-based medicine</p> <ul style="list-style-type: none"> - Provide funding for the national prevention programs • Bring the network of healthcare providers in line with people's needs and resources available: <ul style="list-style-type: none"> - Complete the implementation of comprehensive plans for the recovery and transformation of regional health care networks (including PHC facilities, emergency services, and hospitals), for all oblasts - Implement the National Plan for the Transformation of the Hospital Network, including the development of university hospitals and national specialized centres for high-tech assistance (cardiac surgery, neurosurgery, transplantation, polytrauma, burn treatment) • Expand a single healthcare space - Provide barrier-free transfer of health records between different countries in the amount necessary for the provision of health and rehabilitation care to patients and for making management decisions • Ensure sustainability of long-term care and treatment services with annual analysis and publication of results |
|--|---|--|--|

| | | | |
|--|--|---|---|
| | | <p>medical products, including rehabilitation aids</p> <ul style="list-style-type: none"> - Develop algorithms for health care facilities regarding the creation and operation of hospital laboratories - Begin the process of transformation of the outdated, fragmented and inefficient system of health care laboratories, ● Create a single healthcare space where unified rules apply. - Analyze, develop and implement solutions to eliminate barriers and discriminatory norms in the activities of various health care providers ● Provide the development of long-term care and treatment services (long-term care) ● Ensure people's access to quality and safe health services: - Develop and implement requirements for health care facilities to identify and eliminate barriers to providing health and rehabilitation care - Standardize the requirements for the minimum set of information that the health care facility must publish on its website and information on the health care facility's territory - Provide a system of informing people of the availability of health services at the | <ul style="list-style-type: none"> ● Ensure people's access to quality and safe health services: - Ensure compliance with the requirements for the minimum set of information that the health care facility is obliged to publish on its website and information on the territory of the health care facility - Provide stable and effective information to people about the availability of health services at the national, regional and local levels with an annual assessment of its effectiveness - Ensure regular collection of research results regarding the availability of health and rehabilitation care, including financial barriers and their publication on the website of the Ministry of Health of Ukraine ● Ensure compliance with the requirements for health care facilities regarding inclusive approaches in the provision of health and rehabilitation care through appropriate standards and contracting of NHSU |
|--|--|---|---|

| | | | |
|---------------------------------------|--|--|---|
| | | <p>national, regional and local levels with an annual assessment of its effectiveness</p> <ul style="list-style-type: none"> - Develop a user guide for the Ukrainian health care system with sequence of actions in various situations ● Apply inclusive approach when developing healthcare services, including electronic services ● Implement the national classifier 030:2022 Classifier of functioning, vital activities limitations and health | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Absence of reliable sources of data and methodology for estimating the forecast amount number of population in terms of territorial communities ● Lack of consent among stakeholders | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Influence of corruption factors ● lack of understanding in the political environment of the need to solve problems in this way and the corresponding initiatives for decision-making ● Low capacity of executive bodies ● Lack of consent among stakeholders ● Different approaches to the planning and transformation of the network of health care facilities | <ul style="list-style-type: none"> ● Lack of state budget resources ● Influence of corruption factors ● lack of understanding in the political environment of the need to solve problems in this way and the corresponding initiatives for decision-making ● Low capacity of executive bodies ● Lack of consent among stakeholders |
| Quality goal achievement indicator | <ul style="list-style-type: none"> ● Provision of continuous health and rehabilitation care in war conditions was ensured ● Additional needs of the population in | <ul style="list-style-type: none"> ● Provision of continuous health and rehabilitation care in the post-war period was ensured | <ul style="list-style-type: none"> ● A constant analysis of the interaction of PHC with the other levels of health care was introduced to support decisions regarding |

| | | | |
|--|--|---|--|
| | <p>connection with the war were identified and the provision of services to meet them was started</p> <ul style="list-style-type: none"> • An assessment of the damaged infrastructure in the liberated territories was carried out • A rapid assessment of the availability of health services was carried out, with priority given to the affected areas • Provision has been developed on vulnerable population groups (including IDPs) in the context of receiving health and rehabilitation care • National guidelines on the restoration of health care infrastructure at the regional level have been developed | <ul style="list-style-type: none"> • Comprehensive plans for the recovery and transformation of regional health care networks (including PHC facilities, emergency services, and hospitals) for all regions have been implemented • The role of PHC as one of the main components of the health care system has been strengthened • Comprehensive prevention programs for the most common chronic diseases, as well as healthy lifestyle programs have been implemented at the PHC level. • National screening programs for different age categories on the principles of evidence-based medicine were developed and implemented • Long-term care services have been introduced • Requirements for health care facilities regarding inclusive approaches in the provision of health and rehabilitation care through appropriate standards and contracting of NSHU have been introduced • The international ICF classification was introduced • Integration and regionalization of health services was ensured at the regional level • A single healthcare space has been created • Barrier-free transfer of health records between different healthcare providers in the amount necessary for the | <p>integrated and complex services in health care</p> <ul style="list-style-type: none"> • Integration of PHC, public health and social support services was ensured • At the PHC level, there are comprehensive prevention programs for the most common chronic diseases, as well as healthy lifestyle programs, which are implemented in cooperation with public health institutions and the provision of social services. • National screening programs for different age groups on the principles of evidence-based medicine are financed from the state budget • The development of hospital networks is based on three-year plans • Synchronization of the transformation of the hospital network with the optimization of PMG packages has been ensured • The stability of the data collection system for long-term care services for annual analysis and publication of results is ensured • Fulfilment of requirements for health care facilities regarding inclusive approaches in the provision of health and rehabilitation care through appropriate standards and contracting of NHSU was ensured • A single healthcare space with European countries has been created • Barrier-free transfer of health records |
|--|--|---|--|

| | | | |
|--|-----------------|---|---|
| | | <p>provision of health and rehabilitation care to patients and for making management decisions was ensured</p> | <p>between healthcare providers of different countries is ensured in the necessary amount for the provision of health and rehabilitation care</p> |
| Connection with the other directions | | <p>Priority 2 Financing</p> <ul style="list-style-type: none"> - on the reconstruction of the infrastructure - on the transformation of the health care network - on equipment -for the PMG national prevention programs: <ul style="list-style-type: none"> - expansion of PHC services - the optimization of PHC packages is synchronized with the transformation of the health care network | |
| The total amount of the need for financial resources to achieve the goal | UAH 500 million | UAH 101 billion | UAH 235 billion |

Priority 4. Health services development to meet the needs of people (including IDPs, war veterans) caused by the war

2. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|--|
| Key challenges | <ul style="list-style-type: none"> • The war led to significant changes in the provision of health services, their fragmentation and partial inaccessibility for patients • Among the most common experiences that affect health are: change of residence, separation from loved ones and anxiety for their well-being, loss of a source of income and limited access to basic services • Modern warfare causes significant civilian casualties, so the public health consequences are as important as those caused by traumatic injuries. • The system of health services, which did not have time to reform in the pre-war period, has significant disproportions due to a shortage of some services and an excess of the others • The structure of health services does not correspond to the epidemiological situation and the needs of the population • A significant part of health services uses outdated technologies and does not comply with the principles of evidence-based medicine • The results of the migration of the population and health care professionals require a review of the availability of resources and the localization of providers • The rehabilitation system has a significant lack of organizational and human resources capacity • Certain types of health services require additional resources in the war and post-war periods |
| Key possibilities | <ul style="list-style-type: none"> • Centralization of management and planning of the health care network at the national and regional levels • Involvement of international expertise in the creation of new types of health services • The possibility of international assistance for the transfer of knowledge and skills to Ukrainian healthcare workers and rehabilitation professionals • Opportunity for Ukrainian professionals to study in clinical conditions of other countries • Potential increase in funding for recovery from international sources |
| Key limitation | <ul style="list-style-type: none"> • The economic and social crisis caused by the full-scale war of the Russian Federation against Ukraine • Unpredictable timing of the end of the war • Lack of carriers of clinical skills and conditions for training a significant number of healthcare workers and rehabilitation professionals • The need to continue the development of most rehabilitation professions under martial law • Lack of qualified staff to restore/create health services in certain areas |

- **Goals, tasks, stages of the Recovery Plan within the direction «Health services development to meet the needs of people (including IDPs, war veterans) caused by the war»**

2.1. Goals aimed at resolving identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|--|----------------------------------|---------------------------------------|---------------------------------------|
| <p>1. Identified problem to be resolved in the relevant analysis area</p> <p>Ukraine suffered significant destruction of the health care infrastructure during the military aggression. However, in addition to the changes caused by the war, the health care delivery system suffers from unsolved problems that existed before the war and continue to have a negative impact on the situation.</p> <p>Particular attention should be paid to healthcare services that were not being historically developed in Ukraine or did not comply with modern approaches to their provision. Protection of mental health in the conditions of war and post-war times requires extraordinary decisions and large-scale measures in a very short time. The same</p> | | | |

applies to rehabilitation services. There is absolutely no reserve of time for the development of such types of health care as traumatology, intensive care, reconstructive surgery, treatment of burns and others related to the mass trauma of people during the war, and the development of specialized rehabilitation for spinal traumas, amputations, burns, etc. These services are needed now.

| | | | |
|--|---|--|--|
| Goal to be achieved to solve the issue during each stage | <ul style="list-style-type: none"> ● Develop a multi-level integrated model of rehabilitation care provision and its financial support ● Develop a concept and create specialized rehabilitation departments / facilities for patients with complex needs ● Develop, within the framework of the PMG, additional packages of rehabilitation services to ensure the provision of assistance for health conditions that arise during the war ● Synchronize the development of the network of rehabilitation care providers with the system of hospital districts - Conduct an audit of the needs of IDPs and servicemen in rehabilitation care, taking into account the demographic and infrastructural changes that have occurred/may occur due to active hostilities. ● Ensure the functioning of multidisciplinary rehabilitation teams in each health care facility that provides inpatient rehabilitation care | <ul style="list-style-type: none"> ● Implement a multi-level integrated model of providing rehabilitation care and its financial support (rehabilitation aids for patients; PHC packages; standards) ● Create specialized rehabilitation departments for patients with complex needs; implement a system of analysis and reporting of their activities - Remove sanatorium-resort treatment and unsubstantiated rehabilitation from Ukrainian legislation and budget programs, replacing it with rehabilitation care within the framework of PMG ● Synchronize the network of rehabilitation care providers with the system of hospital districts; implementing a system of analysis and reporting of their activities ● Integrate the provision of rehabilitation care into the PHC system; implement a system of analysis and reporting of their activities ● Ensure the functioning of multidisciplinary rehabilitation teams as the basis for the provision of rehabilitation services in each health care facility that provides inpatient rehabilitation care; implement a system of | <ul style="list-style-type: none"> ● Ensuring the sustainable functioning of the multi-level integrated system of providing rehabilitation care and its financial support ● Ensuring the sustainable functioning of the system of specialized rehabilitation departments, analysis and reporting of their activities ● Ensuring the sustainable functioning of the network of rehabilitation care providers, which is synchronized with the system of hospital districts, analysis and reporting of their activities ● Integrating the provision of rehabilitation care into the PHC system - PMG packages, analysis and reporting system ● Ensuring the sustainable functioning of multidisciplinary rehabilitation teams in all health care facilities that provide rehabilitation care |
|--|---|--|--|

| | | | |
|---------------------------------------|--|---|---|
| | | <p>analysis and reporting of their activities</p> <ul style="list-style-type: none"> ● Assess the needs for rehabilitation aids when providing rehabilitation services ● Provide funding for the provision of rehabilitation aids, in particular prostheses when providing rehabilitation assistance | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Lack of rehabilitation professionals ● Insufficient professional level of existing rehabilitation professionals | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Lack of consent among stakeholders ● Lack of rehabilitation professionals ● Insufficient professional level of existing rehabilitation professionals | <ul style="list-style-type: none"> ● Lack of state budget resources ● Lack of consent among stakeholders |
| Quality goal achievement indicator | <ul style="list-style-type: none"> ● A multi-level integrated model of providing rehabilitation care and its financial support has been developed, including mechanisms for providing patients with rehabilitation aids ● A concept was developed and at least 3 specialized rehabilitation departments for patients with complex needs were created ● Each hospital district has an inpatient post-acute and long-term rehabilitation department in at least one cluster hospital ● Each health care facility that provides inpatient rehabilitation care has a functioning multidisciplinary rehabilitation team | <ul style="list-style-type: none"> ● A multi-level integrated model of providing rehabilitation care and its financial support was introduced, including mechanisms for providing patients with rehabilitation aids ● Specialized rehabilitation departments for patients with complex needs were created with a clear system of their analysis and reporting ● Each cluster hospital in each hospital district has an inpatient post-acute and long-term rehabilitation department with a clear system of their analysis and reporting ● Each health care facility that provides | <ul style="list-style-type: none"> ● The sustainable functioning of the multi-level integrated system of rehabilitation care delivery and its financial support is ensured, including mechanisms for providing patients with rehabilitation aids |

| | | | |
|---|---|---|--|
| | | <p>inpatient rehabilitation care has a functioning multidisciplinary rehabilitation team</p> <ul style="list-style-type: none"> • Rehabilitation care is integrated into the PMG system | |
| The total amount of the need for financial resources to achieve the goal | - | UAH 2 billion | UAH 900 million |
| Connection of the goal with other directions | | <p>Priority 2 Financing</p> <ul style="list-style-type: none"> - For the equipment | |
| <p>The goal to be achieved to solve the problem at each stage</p> <p>2. Ensuring the development of mental health services that are close to the person and the community, and are also planned taking into account the needs of the community, in particular during the war and the recovery period</p> | <ul style="list-style-type: none"> • Integrate mental health services into PHC using evidence-based tools (such as mhGAP) • Develop a package of mental health services at the PHC level and provide training of PHC professionals, regulate the prescription of psychotropic medications, data entry in eHealth according to ICPC-2 together with international partners • Ensure the provision of mental health services at the PHC level • Create a PMG package of outpatient psychiatric care and stimulate its implementation in multiprofile healthcare facilities • Ensure the further development of the PMG package "Psychiatric care provided by mobile multidisciplinary teams" as a key structural unit of the psychiatric care system, as well as the expansion of the range of services due to the inclusion of post-traumatic stress disorder | <ul style="list-style-type: none"> • Develop a model for the integration of mental health services at all levels of the health care system (update the concept; develop, implement the concept action plan; develop the regulatory acts; services in the community; IT for mental health; standards, service packages) • Develop a package of mental health services at the PHC level (review existing packages; develop universal screenings; approve a mental health package for PHC; contract for it) • Ensure the provision of mental health services at the PHC level; implement a system of analysis and reporting of their activities • Create psychiatric departments at the level of cluster hospitals; implement a system of analysis and reporting of their activities | <ul style="list-style-type: none"> • Continue the implementation of the plan of actions for the realization of the Concept of Mental Health Care Development in Ukraine for the period until 2030 • Ensure sustainable provision of mental health services at the PHC level • Ensure sustainable functioning of psychiatric departments at the level of cluster hospitals, analysis and reporting of their activities |

| | | | |
|---------------------------------------|---|---|--|
| | <ul style="list-style-type: none"> • Improve the living conditions in inpatient psychiatric care facilities, as well as simultaneously create the competitive conditions for general health care facilities by submitting and implementing a package of inpatient psychiatric care in multiprofile facilities. • together with the Ministry of Social Policy of Ukraine and with the support of international partners, carry out piloting and implementation of transitional services (e.g. supported living), which are an alternative to psycho-neurological orphanages and provide assistance in a way that respects human rights and dignity | | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> • Continuation of the war on the territory of Ukraine • Lack of state budget resources • Lack of consent among stakeholders | <ul style="list-style-type: none"> • Continuation of the war on the territory of Ukraine • Lack of state budget resources • Influence of corruption factors • lack of understanding in the political environment of the need to develop mental health care services and the corresponding decision-making initiatives • Low capacity of executive bodies • Lack of consent among stakeholders | <ul style="list-style-type: none"> • Lack of state budget resources • Influence of corruption factors • lack of understanding in the political environment of the need to develop mental health care services and the corresponding decision-making initiatives • Low capacity of executive bodies • Lack of consent among stakeholders |
| Quality goal achievement indicator | <ul style="list-style-type: none"> • The Concept of Mental Health Care Development in Ukraine for the period up to 2030 has been updated, taking into | <ul style="list-style-type: none"> • The plan of actions for the realization of the Concept of Mental Health Care Development in Ukraine for the period | <ul style="list-style-type: none"> • The plan of actions for the realization of the Concept of Mental Health Care Development in Ukraine for the period |

| | | | |
|--|--|---|--|
| | <ul style="list-style-type: none"> account the consequences of the war The scope of services was approved and a package of mental health services was developed at the PHC level | <p>2024-2026 has been implemented.</p> <ul style="list-style-type: none"> The package of mental health services at the PHC level based on the results of the previous implementation was revised Provision of mental health services at the PHC level is ensured Psychiatric departments have been created at the level of cluster hospitals | <p>2026-2030 has been implemented.</p> <ul style="list-style-type: none"> The package of mental health services at the PHC level based on the results of the previous implementation was revised Provision of mental health services at the PHC level is ensured Psychiatric departments have been created at the level of cluster hospitals |
| The total amount of the need for financial resources to achieve the goal | | UAH 1,5 billion | |
| Connection of the goal with other directions | | <p>Priority 2 Financing</p> <ul style="list-style-type: none"> - for equipment - expansion of PHC services | |
| <p>Goal to be achieved to solve the issue during each stage</p> <p>3. Ensuring the development of traumatological, orthopedic, burn and intensive care services</p> | <ul style="list-style-type: none"> Develop the concept of regionalization and organize the provision of traumatological and orthopedic services within the hospital cluster Develop the concept of regionalization and create a national network of burn centres Develop the concept of regionalization and create a national network of reconstructive surgery centres Develop the concept of regionalization and organize the provision of intensive care services by levels within the hospital cluster | <ul style="list-style-type: none"> Implement the concept of regionalization and organize the provision of traumatological and orthopedic services within the hospital cluster; implement a system of analysis and reporting of their activity Implement the concept of regionalization and create a national network of burn centers; implement a system of analysis and report of their activity Implement the concept of regionalization and create a national network of reconstructive surgery centers; implement a system of analysis and reporting of their activity Implement the concept of regionalization and | <ul style="list-style-type: none"> Ensure sustainable functioning of traumatological and orthopedic departments at the level of cluster hospitals, system of analysis and reporting Ensure the sustainable functioning of burn centers, the system of analysis and reporting of their activity Ensure sustainable functioning of reconstructive surgery centers, the system of analysis and reporting of their activity Ensure sustainable functioning of intensive care units by levels within the hospital cluster, the system of analysis and reporting of their activity |

| | | | |
|--|---|--|---|
| | | organize the provision of intensive care services by levels within the hospital cluster; implement a system of analysis and reporting of their activity | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> Continuation of the war on the territory of Ukraine Lack of state budget resources Lack of consent among stakeholders | <ul style="list-style-type: none"> Continuation of the war on the territory of Ukraine Lack of state budget resources Lack of consent among stakeholders | <ul style="list-style-type: none"> Lack of state budget resources Lack of consent among stakeholders |
| Quality goal achievement indicator | <ul style="list-style-type: none"> The concept of regionalization of trauma and orthopedic services within the hospital cluster was developed The concept of regionalization of burn centers has been developed The concept of regionalization of reconstructive surgery centers was developed The concept of regionalization of intensive care services by levels within the hospital cluster has been developed | <ul style="list-style-type: none"> The provision of traumatological and orthopedic services is organized according to the level of their complexity within the hospital cluster with a clear system of their analysis and reporting A national network of burn centers with a clear system of their analysis and reporting has been created The provision of intensive care services by levels within the hospital cluster is organized with a clear system of their analysis and reporting | <ul style="list-style-type: none"> Sustainable functioning of traumatological and orthopedic departments at the level of cluster hospitals, analysis and reporting system is ensured The sustainable functioning of burn centers, the system of analysis and reporting of their activity is ensured Sustainable functioning of reconstructive surgery centers, analysis and reporting system is ensured Sustainable functioning of intensive care units by levels within the hospital cluster, the analysis and reporting system is ensured |
| The total amount of the need for financial resources to achieve the goal | - | UAH 731 million | |
| Connection of the goal with other directions | | Priority 2 Financing - for equipment - expansion of PMG services | Priority 2 Financing - for equipment - expansion of PMG services |
| Goal to be achieved to solve the issue during each stage | <ul style="list-style-type: none"> Determine the range of special needs of veterans and improve PMG packages to take into account the needs | <ul style="list-style-type: none"> Improve the PMG packages to take into account the veteran's needs (screening system; primary provision of | |
| 4. Developing health services in accordance | | | |

| | | | |
|---|---|---|------------------------------|
| with the needs of war veterans and persons affected by hostilities | of veterans and war victims | <p>rehabilitation aids; updated packages)</p> <ul style="list-style-type: none"> ● Provide veterans with the full scope of necessary rehabilitation care ● Ensure the provision of rehabilitation care that comply with the evidence-based principles ● Ensure the presence of a veteran's route in the integrated system of rehabilitation care ● Reorganize networks of health care facilities in order to ensure the veteran's route in the rehabilitation system ● Ensure the provision of rehabilitation services to the veteran based on the bio-psychosocial model of needs, and not on the basis of the disability status within the framework of the integrated route of the veteran in the rehabilitation system ● Develop a veteran-oriented system of providing rehabilitation aids ● Provide a mechanism for interaction and involvement of the employment sector and the social sector | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Influence of corruption factors ● Lack of understanding in the political environment of the need to develop health services for veterans and relevant | |

| | | | |
|--|--|--|---|
| | | decision-making initiatives | |
| Quality goal achievement indicator | <ul style="list-style-type: none"> PMG packages take into account the needs of veterans | <ul style="list-style-type: none"> PMG packages take into account the needs of veterans Veterans receive a full range of rehabilitation services | |
| The total amount of the need for financial resources to achieve the goal | State budget funds | UAH 2,9 billion | - |
| Connection of the goal with other directions | | Priority 2 Financing - for equipment - expansion of PMG services | |

Priority 5. Consolidation and strengthening of human resources of the healthcare system

3. 1. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|---|
| Key challenges | <ul style="list-style-type: none"> • The training curricula are outdated and irrelevant, which leads to a lack of practical skills, clinical thinking and change management in future healthcare workers. • The uneven distribution of human resources in health care was exacerbated by the migration of healthcare workers during the war to the western regions and abroad • Lack of staff planning mechanisms at the level of the facility and the region, which makes it impossible to understand the necessary quantity of specialists to provide a certain scope of services, which is aggravated by the lack of data on the real amount of the population that needs services in the most affected areas during the war • Lack of an effective system of motivation for local authorities to attract healthcare workers and rehabilitation professionals to the most affected areas during the war • Absence/limitation of a transparent/fair system of recruitment, support and career development of healthcare workers within the health care facility • Limited powers of nurses in providing health services • Absence/limited mechanisms for involving non-healthcare workers (social workers) in the provision of health care services • Absence/limited critical skills of health workers to provide services in trauma care, rehabilitation care, mental health, and facility management during wartime and postwar period |
| Key possibilities | <ul style="list-style-type: none"> • Modern approaches to hospital planning determine the need and requirements for staffing of healthcare facilities • Availability of a tool for planning the workforce based on activity (activity-based planning), which was tested in the field of public health • High motivation of ordinary workers to change/reform the health care system • Involvement of international experts in the restoration of the health care system • Competition between facilities for the patient • Motivation of healthcare workers and rehabilitation professionals to develop in the modern context • Broad opportunities to study using online formats • Awareness of heads of facilities that money is not the only motivation to work among healthcare workers |
| Key limitations | <ul style="list-style-type: none"> • Ongoing full-scale military aggression of the Russian Federation against Ukraine • Limited funding caused by the economic crisis caused by the war • Corruption in the education system in health care • The outflow of human resources from the regions that suffered the greatest destruction |

2. Goals, tasks, stages of the Recovery Plan within the direction "Consolidation and strengthening of human resources of the healthcare system"

2.1. Goals aimed at resolving identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|--|-------------------------------------|--|--|
| <p>1. Identified problem to be resolved in the relevant analysis area</p> <p>The system of staff training in the field of health care has a number of problems. Currently, there is no network of strong medical universities. The training curricula are outdated and irrelevant, and the lack of modern and potent university clinics and simulation centers leads to insufficient practical skills of future medical healthcare workers.</p> <p>The COVID-19 pandemic has revealed a shortage of human resources in the field of public health, particularly epidemiologists. The uneven distribution, exacerbated by the war, is aggravated by the lack of staff planning mechanisms at the facility and regional level, which makes it impossible to determine the required quantity of</p> | | | |

specialists to provide a certain scope of services. Even before the war, the fragmented social protection of health care workers did not contribute to their general well-being, which directly affected the level of work in providing health and rehabilitation care to the population and ensuring public health functions. The procedure for passing continuous professional development (CPD) by rehabilitation professionals has not been implemented.

During the war and in the post-war period, when a large part of the infrastructure in Ukraine is destroyed, and access to doctors and rehabilitation specialists is significantly complicated, the role of nurses becomes especially important. The modern health care system indicates the expediency of shifting the boundary between the professions of doctor and nurse in the direction of giving nurses greater powers, expanding their clinical and managerial functionality. The involvement of social workers in the health care system becomes especially relevant during the war and the post-war period. The absence of social workers in the staff of healthcare facilities indicates that the functions that they could perform are currently performed by nurses, and some of the functions related to care fall on the shoulders of relatives or are not performed at all. Modern training programs for primary care specialists in the management of PTSD and other mental health disorders associated with the consequences of military operations should be introduced into the curricula of educational institutions.

In addition, the growing role of the physician demands to expand his knowledge and skills on various issues. Special attention should be given to the acquisition of new clinical skills by doctors with a special emphasis on the treatment of physical injuries in war victims (eg techniques in reconstructive surgery), and therefore appropriate training programs should be initiated and operated to meet the demand.

At all stages, the implementation of measures to strengthen human resources should be aimed at achieving the key characteristics of human resources of the health care system: availability, acceptability and quality.

| | | | |
|--|---|---|---|
| <p>Goal to be achieved to solve the issue during each stage</p> <p>1. Integration of healthcare sector education and research into the current international context.</p> | <ul style="list-style-type: none"> ● Develop and strengthen the critical skills of health workers during the war and in the post-war period, namely: <ul style="list-style-type: none"> - Provide extensive mental health training for family doctors and primary care nurses - Provide extensive training in clinical and organizational issues of trauma treatment and rehabilitation ● Stimulate the evolution of new forms of CPD for all healthcare professionals, which are consistent with the priorities of the healthcare system, namely: <ul style="list-style-type: none"> - Ensure the organizational development of the CPD Agency: develop an organizational structure, detail functionality of key roles, develop basic business processes - Update/create a legal framework for modern postgraduate education of nurses | <ul style="list-style-type: none"> ● Align the curricula of higher education institutions in the field of knowledge "22 Healthcare" with the European requirements and regularly review them: <ul style="list-style-type: none"> - Conduct a comprehensive assessment of the organizational, financial and personnel capacity and infrastructural capacity of the higher education institutions (HEI) in the field of knowledge "22 Health Care". - Develop and approve a road map for creating an effective network of capable HEIs in the field of knowledge "22 Health Care" - Develop and approve a roadmap of activities to bring educational standards in the field of knowledge "22 Health Care" into line with the | <ul style="list-style-type: none"> ● Comply with the special licensing requirements for of higher education institutions that prepare students in the field of knowledge "22 Healthcare", namely: <ul style="list-style-type: none"> - Ensure monitoring of the quality of the educational activities of higher education institutions that train specialists in the field of knowledge "22 Health Care" ● Provide conditions for acquiring practical skills of healthcare workers on the basis of modern university hospitals and simulation centers ● Improve the independent evaluation system for the quality of student training in the field of knowledge "22 Health care", namely: <ul style="list-style-type: none"> - Provide the analysis and revision of the database of test tasks of all components of the unified state qualification exam and |
|--|---|---|---|

| | | | |
|--|--|---|--|
| | | <p>European requirements</p> <ul style="list-style-type: none"> - Ensure the development of modern educational programs for the training of doctors for obtaining secondary specialization - Develop a concept for the evolution of education for nurses, which will take into account the differentiation of roles and functionality of nurses and include requirements for the content, structure, level of the institution where practical training should take place, etc. - Develop requirements for creating a student-oriented environment in higher healthcare education institutions - Develop an effective mechanism for reducing corruption risks in the educational process (admission, training, distribution) ● Introduce special licensing requirements for higher education institutions in the field of knowledge "22 Healthcare". - Define at the legislative level the concept of healthcare and pharmaceutical education as a type of specialized education and the powers of the | <p>their updating on an ongoing basis</p> <ul style="list-style-type: none"> - Implement a unified international exam for applicants in the field of knowledge "22 Health care" ● Implement a modern model of residency based on international experience, namely: <ul style="list-style-type: none"> - Develop and implementing the unified state qualification exam for residency graduates ● Plan pertinent scientific topics (areas) in accordance with the state's needs in the field of healthcare, ensure a sufficient level of their financing and implementation of achievements on the basis of modern university clinics, namely: <ul style="list-style-type: none"> - Support the work of scientific and practical centers (science parks) for the implementation of priority directions for the development of science in the field of health care |
|--|--|---|--|

| | | | |
|--|--|--|--|
| | | <p>executive body, which forms and implements policy in the field of health care</p> <ul style="list-style-type: none"> - Ensure monitoring of the quality of the educational activities of higher education institutions that train specialists in the field of knowledge "22 Health Care" - Provide conditions for the acquisition of practical skills of healthcare workers and rehabilitation professionals on the basis of modern university hospitals and simulation centers - Develop provisions on the institution that has the status of "University hospital" with the definition of criteria and obligations of health care facility and HEI. - Develop an algorithm for creating a university hospital and transparent procedures for assigning and suspending the status of "University Hospital" - Develop a transparent mechanism for the management of university hospitals and ensure openness of data on the activities of university hospitals - Create university hospitals on the basis of the most potent healthcare facilities in | |
|--|--|--|--|

| | | | |
|--|--|--|--|
| | | <ul style="list-style-type: none"> - cooperation with leading HEI - Developing requirements for simulation centers for teaching practical skills of students of higher education institutions - Equip the simulation centers with the modern simulation equipment - Improve the independent evaluation system for the quality of student training in the field of knowledge "22 Healthcare". - Provide analysis and revision of the database of test tasks of all components of the unified state qualification exam and their updating on an ongoing basis - Revise «STEP-3» and bring it into line with the sample internship training programs - Introduce a unified international exam for applicants in the field of knowledge "22 Health care" - Implement a modern model of residency based on international experience - Develop and approve the "Regulations on Residency" taking into account the best global practices - Determine licensing requirements for institutions that will train resident doctors | |
|--|--|--|--|

| | | | |
|--|--|--|--|
| | | <ul style="list-style-type: none"> - Determine the list of specialties of resident doctors - Develop the samples of training programs at the residency - Stimulate the development of quality education of managers in the field of health care - Review training programs for managers with health and non-healthcare education according to the best European practices - Train the existing management teams and supervisory boards of the healthcare facilities in the skills of financial and strategic management of the institution - Stimulate the development of new forms of CPD for all healthcare professionals, which are consistent with the priorities of the healthcare system - Ensure the organizational development of the CPD Agency: involvement of the professional community in the creation and development of expert councils at the CPD Agency - Develop and implement the procedure for passing CPD by rehabilitation professionals | |
|--|--|--|--|

| | | | |
|--|--|---|--|
| | | <ul style="list-style-type: none"> - Develop and implement the procedure for passing CPD by nurses, pharmacists and pharmacist assistants - Plan pertinent scientific topics (areas) in accordance with the state's needs in the field of healthcare - Create scientific and practical centers (science parks) to implement priority areas of science development in the field of health care - Develop and strengthen the critical skills of healthcare workers and rehabilitation professionals in the post-war period - Create training centers for the development of clinical skills of doctors and nurses on the basis of potent healthcare facilities - Provide extensive training of family doctors and nurses of primary health care institutions in accordance with the requirements of the Procedure for the provision of primary health care - Provide extensive training in clinical and organizational issues of trauma treatment and rehabilitation - Provide free access to the world's best online learning platforms for healthcare | |
|--|--|---|--|

| | | | |
|---------------------------------------|---|--|--|
| | | <p>professionals, professionals with higher non-healthcare education who work in the field of health care and rehabilitation professionals</p> <ul style="list-style-type: none"> - Provide the state-ordered training of professionals in the following specialties: Epidemiology, laboratory diagnostics, microbiology and virology | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the political environment of the need for the development of health care education and science; ● Continuation of the war on the territory of Ukraine ● Lack of consent among stakeholders | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the political environment of the need for the development of health care education and science; ● Lack of consent among stakeholders | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the political environment of the need for the development of health care education and science; ● Lack of consent among stakeholders |
| Quality goal achievement indicator | <ul style="list-style-type: none"> ● Family doctors, nurses of primary healthcare institutions have the knowledge and skills to provide mental health care ● Healthcare workers gained knowledge and skills in matters of organization of care and treatment of trauma and rehabilitation ● The organizational structure, functionality of key roles and basic business processes of the CPD Agency have been developed ● A regulatory and legal framework has been | <ul style="list-style-type: none"> ● Curricula of higher education institutions in the field of knowledge "22 Healthcare" are brought in line with the European requirements ● Modern educational programs for the training of doctors for obtaining secondary specialization are developed ● A student-oriented environment has been created in higher healthcare education institutions ● Developed mechanisms for reducing corruption | <ul style="list-style-type: none"> ● Monitoring of the quality of the educational activities of higher education institutions that train specialists in the field of knowledge "22 Health Care" is ensured ● University hospitals, created on the basis of the most potent health care facilities in cooperation with the leading HEI, are flagships in the provision of health services ● A unified international exam |

| | | | |
|--|--|--|--|
| | <p>created for the introduction of modern postgraduate education of nurses</p> | <p>risks in the educational process (admission, training, distribution) minimize the occurrence of corruption in the higher healthcare education institutions</p> <ul style="list-style-type: none"> ● There are special licensing requirements for the higher education institutions that train students in the field of knowledge "22 Healthcare" ● Monitoring of the quality of the educational activity of higher education institutions that train specialists in the field of knowledge "22 Health Care" is ensured on the basis of the created center/agency for monitoring the quality of educational activity of higher education institutions that train specialists in the field of knowledge "22 Health Care" ● Modern university hospitals have been established and are operating ● A unified international exam for applicants in the field of knowledge "22 Health Care" has been introduced ● A modern residency model has been implemented, taking into account international experience ● Expert councils at the CPD Agency were created to analyze the work of CPD providers ● The CPD system of rehabilitation | <p>for applicants in the field of knowledge "22 Health Care" has been introduced</p> <ul style="list-style-type: none"> ● A unified state qualification exam was introduced for residency graduates |
|--|--|--|--|

| | | | |
|--|---|---|---|
| | | <p>specialists has been introduced</p> <ul style="list-style-type: none"> ● CPD systems have been introduced for nurses/doctors, pharmacists and pharmacist assistants ● Scientific and practical centers (science parks) have been organized to implement the priority areas of science development in the field of health care ● Training/simulation centers have been created for the development of clinical skills of doctors and nurses on the basis of powerful healthcare facilities ● Healthcare workers and specialists with higher non-healthcare education who work in the field of healthcare have received free access to the world's best online educational platforms | |
| The total amount of the need for financial resources to achieve the goal | | UAH 6,09 billion | UAH 14,210 billion |
| Connection of the goal with other directions | <p>All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities</p> | <p>Priority 2 Financing - on equipment for simulation centers</p> <p>All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities</p> | <p>All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities</p> |
| Goal to be achieved to solve the issue during each stage 2. The scope and structure of healthcare system HR | <ul style="list-style-type: none"> ● Introduce healthcare system HR planning in line with the needs to | <ul style="list-style-type: none"> ● Introduce healthcare system HR planning in line with the needs to | <ul style="list-style-type: none"> ● Support and develop a flexible system of incentives and rewards at both |

| | | | |
|--|--|---|--|
| planning meeting the existing needs | <p>ensure the delivery of quality services, namely:</p> <ul style="list-style-type: none"> - Develop approaches to HR planning based on optimal workload and taking into account the level of the facility ● Develop and implement a flexible system of incentives and rewards at both the national and local levels to attract and retain health care workers in areas that are understaffed in order to provide health and rehabilitation care and in areas that have suffered the most during the war, namely: - Develop the mechanisms for motivating healthcare workers at the national and local levels to work in the regions most affected by the war | <p>ensure the delivery of quality services, namely:</p> <ul style="list-style-type: none"> - Ensure planning of health care human resources at the regional level based on the hospital plan ● Develop and implement a flexible system of incentives and rewards at both the national and local levels to attract and retain health care workers in areas that are understaffed in order to provide health and rehabilitation care and in areas that have suffered the most during the war, namely: - Implement local programs to motivate healthcare workers to work in the regions most affected by the war - Provide effective mechanisms for the fulfilment of the obligations of HEI graduates who studied under the state (regional) order and concluded agreements to work for at least three years in rural areas or urban-type settlements ● Ensure access to health services by involving non-healthcare workers and expanding the role of the nurse: - Develop a policy framework regarding the autonomization | <p>national and local levels to attract and retain health care workers in areas that are understaffed in order to provide health and rehabilitation care</p> |
|--|--|---|--|

| | | | |
|---------------------------------------|--|--|--|
| | | <p>(expansion of powers and functional responsibilities) of the nurse's role in the health care system.</p> <ul style="list-style-type: none"> - Determine the differentiation of the roles of the nurse and provide the corresponding functionality in health care facilities ● Develop a policy framework regarding the inclusion of a social worker in the healthcare services delivery - Review the models of services delivery by a social worker in the health care system - Develop a model of financing of services delivery by a social worker in the health care system - Develop and implement appropriate training for the inclusion of a social worker as a member of a multidisciplinary team in the provision of services in the health care system ● Create a transparent and clear admission system for foreign doctors and rehabilitation professionals to conduct training and provide health and rehabilitation care on the territory of Ukraine - Simplify the procedure for granting permission to foreign specialists to practice in Ukraine | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the |

| | | | |
|--|--|---|---|
| | <p>political environment of the need for the changes in approaches to health care staff training</p> <ul style="list-style-type: none"> Continuation of the war on the territory of Ukraine | <p>the political environment of the need for the changes in approaches to health care staff training</p> | <p>political environment of the need for the changes in approaches to health care staff training</p> |
| Quality goal achievement indicator | <ul style="list-style-type: none"> Approaches to HR planning have been developed based on the optimal workload and taking into account the level of the facility Mechanisms have been developed to motivate health care workers at the national and local levels to work in the regions most affected by the war | <ul style="list-style-type: none"> Planning of health care human resources which is based on the approaches of optimal workload and take into account the level of the facility is implemented in healthcare facilities Programs have been introduced at the national and local levels to motivate healthcare workers and rehabilitation professionals to work in the most affected regions and regions that are in need of healthcare workers and rehabilitation professionals A system of differentiation of nurse roles was introduced Social workers are involved in the services delivery in the health care system A transparent system of admission of foreign doctors and rehabilitation professionals to conduct training and provide health and rehabilitation care on the territory of Ukraine has been created | <ul style="list-style-type: none"> Health care facilities are provided with properly trained staff |
| The total amount of the need for financial resources to achieve the goal | Requires calculation | Requires calculation | Requires calculation |

| | | | |
|---|--|--|---|
| Connection of the goal with other directions | All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities | All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities | All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities |
| Goal to be achieved to solve the issue during each stage 3. Creating conditions to ensure the professional well-being of healthcare workers | <ul style="list-style-type: none"> • Ensure decent pay and develop a flexible system of motivation and support for healthcare system human resources | <ul style="list-style-type: none"> • Ensure decent pay and develop a flexible system of motivation and support for healthcare system human resources, including through the introduction of key performance indicators and optimum workload, namely: <ul style="list-style-type: none"> - Develop fair mechanisms for financial motivation of healthcare workers and rehabilitation professionals and professionals with higher non-healthcare education who work in the field of healthcare - Develop the quality indicators of work of doctors, rehabilitation professionals, nurses and professionals with higher non-healthcare education who work in the field of health care, with further introduction of a transparent system of financial motivation - Introduce a transparent system of non-financial motivation of health care workers | <ul style="list-style-type: none"> • Support and develop a comprehensive approach to the formation of the professional well-being of the healthcare system human resources at the level of health care facilities (safety, social and living conditions, burnout prevention, professional development in the facility, etc.), namely: <ul style="list-style-type: none"> - Provide support for ongoing professional burnout prevention programs in health care facilities • Introduce professional liability insurance for healthcare workers |

| | | | |
|--|--|--|--|
| | | <ul style="list-style-type: none"> ● Introduce transparent and competitive procedures for attracting and retaining medical, managerial and other staff at the level of healthcare facilities, as well as for their career development and professional growth: - Develop modern approaches to the organization of the HR system in health care facilities - Organize training for employees of HR departments and managers of health care facilities on the implementation of new approaches to the involvement and development of health care workers ● Introduce a comprehensive approach to the development of professional well-being of HCS HR at the level of healthcare facilities (safety, social conditions, burnout prevention, professional development in the facility, etc.) - Determine legislatively the obligation of the owner of the healthcare facility to create safe and comfortable working conditions - Introduce permanent programs for the professional | |
|--|--|--|--|

| | | | |
|---------------------------------------|---|--|--|
| | | <ul style="list-style-type: none"> ● Introduce professional liability insurance for healthcare workers - Develop financial approaches and legal framework for providing professional liability insurance for healthcare workers | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the political environment of the need to ensure the professional well-being of healthcare workers ● Continuation of the war on the territory of Ukraine | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the political environment of the need to ensure the professional well-being of healthcare workers | <ul style="list-style-type: none"> ● Limited funding; ● Lack of understanding in the political environment of the need to ensure the professional well-being of healthcare workers |
| Quality goal achievement indicator | Healthcare workers receive a guaranteed salary | <ul style="list-style-type: none"> ● There are fair financial motivation mechanisms for healthcare workers, rehabilitation professionals and professionals with higher non-healthcare education working in the field of health care. ● Performance indicators of doctors, rehabilitation professionals, nurses and professionals with higher non-healthcare education working in the field of health care have been introduced ● A transparent system of non-financial employee | <ul style="list-style-type: none"> ● Health care facilities have comprehensive programs to ensure professional well-being |

| | | | |
|--|--|--|--|
| | | <ul style="list-style-type: none"> motivation has been introduced in health care facilities Transparent and competitive procedures for attracting, retaining, career development and professional growth of health care workers, managerial and other staff have been introduced in health care facilities Health care facilities have implemented measures to ensure the safety, social conditions and professional development of healthcare workers and to prevent professional burnout Professional liability insurance for healthcare workers has been introduced | |
| Connection of the goal with other directions | All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities | All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities | All human resources development tasks are closely related to all priorities, in particular, such as ensuring the financial stability of the health care system and the restoration and transformation of the network of health care facilities |

Priority 6. Strengthening of the public health system and preparedness for health emergencies

1. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|---|
| Key challenges | <ul style="list-style-type: none"> • Imperfectness of the system of preparedness and response to emergency situations in public health • Inadequacy of epidemiological surveillance system, in particular in forecasting the individual outbreaks and epidemics • Low rates of vaccination coverage, increasing resistance to antimicrobial drugs, risks of outbreaks of infectious diseases • Environmental pollution, lack of access to safe drinking water and food, hygiene and sanitation related to hostilities. • High risks of chemical and radiation-nuclear threats. |
| Key possibilities | <ul style="list-style-type: none"> • Involvement of international expertise in rebuilding/building a qualitatively new public health system. • Improvement of the legal framework and procedures. Maximum harmonization of the legislative framework with the EU regulations. • Increasing coordination and cross-sectoral cooperation during martial law. • Implementation of the best global practices in the transformation of the system. • Rapid development of the public health system in response to the growing need for an effective health emergency response system. |
| Key limitations | <ul style="list-style-type: none"> • Ongoing military aggression of the Russian Federation against Ukraine; • Unfinished reform of the public health system in Ukraine; • Shortage of qualified human resources for the effective functioning of the public health system; • Fragmentation of the public health system of Ukraine and the EU countries and the duplication of individual public health services by various institutions without ensuring proper coordination; • The need to build/modernize the infrastructure of the public health system in accordance with modern standards, approaches and practices; • Economic and social crisis caused by hostilities. |

The full-scale invasion Russian Federation in Ukraine has aggravated gaps in the health care system and created new challenges that require rapid response and solutions.

The challenges of strategic planning and emergency response are compounded by a lack of knowledge and information related to threats and challenges to human health. The war also aggravated the problems of public health surveillance and monitoring of environmental factors.

2. Goals, tasks, stages of the Recovery Plan within the direction "Strengthening of the public health system and preparedness for health emergencies"

2.1. Goals aimed at resolving identified problems:

| | Stage 1: June 2022 - end of 2022 | Stage 2: January 2023 - December 2025 | Stage 3: January 2026 - December 2032 |
|---|----------------------------------|---------------------------------------|---------------------------------------|
| <p>1. Identified problem to be resolved in the relevant analysis area.</p> <p>Ukraine's public health system has undergone a number of significant and substantial reforms. The State Sanitary and Epidemiological Service (SES) has been dissolved and its functions have been distributed among different institutions and other bodies ensuring the function of state supervision (control) in the respective areas of activity. The National Public Health Concept approved by the Cabinet of Ministers of Ukraine in 2017 outlined the strategic directions for the transformation of the public health system at all levels. Gradual progress has been reported in the transformation of the system and integration of parallel public health systems under the supervision of the Public Health Centre (PHC). However, some problems remain unresolved, in particular, the organization of the public health system at oblast and local levels. In addition, the comprehensive transformation of the public health system was not supported by significant amendments to the legislation, and the Law on Public Health has not yet been adopted, creating legal barriers to the implementation of the reform. Moreover, the spheres of biological safety, biological protection, chemical and radiation safety require legislative regulation. The response of the system to the</p> | | | |

COVID-19 pandemic has somewhat improved the consolidation of management and updated the functionality of the position of the state sanitary doctor and the establishment of coordination mechanisms in the network of public health institutions. The start of a full-scale war also revealed gaps in the surveillance system, the work of the network of health laboratories, the readiness of the system to detect and respond to biological, chemical and radiation threats, including those related to their insufficient funding in recent years.

| | |
|--|---|
| <p>Goal to be achieved to solve the issue during each stage</p> <p>1. Ensuring the functioning of a capable public health system aimed at preserving and promoting public health, disease prevention and timely detection of and response to health challenges, creating a coordination mechanism in the public health system</p> | <ul style="list-style-type: none"> ● Develop regulations and create coordination mechanisms of management in the public health system at the national and regional levels, defining the roles and responsibilities of representatives of non-healthcare sectors, local authorities and the non-governmental sector. ● Adopt in the second reading and as a whole the Draft Law on the Public Health System (No. 4142) ● Ensure the development of a new strategy for the development of immunoprophylaxis and a plan for its implementation. <ul style="list-style-type: none"> - Determine a clear division of roles and responsibilities between authorized institutions in the field of health and safety in the regulatory and legal field - Draft and approve a road map for the development of a network of regional disease control and prevention centers ● Start implementation of enhanced (syndromic) epidemiological surveillance in places where a large number of people, ● Develop the regulatory acts in accordance with the list based on the results of the audit conducted in the previous period. <ul style="list-style-type: none"> - Adopt the Law of Ukraine on overcoming tuberculosis in Ukraine - Adopt the Law of Ukraine on biological safety and biological protection - Ensure the functioning and implement monitoring of the activity of the coordination mechanism in the public health system at the national and regional levels - Enable the involvement of employees of non-governmental organizations without healthcare education to perform certain activities and functions in the public health system with the definition of the mechanisms of their involvement and quality assessment standards - Ensure the operation and due organizational, financial and human resource capacities of the Public Health Center at the national level as the main expert institution in ● . Continue the implementation of measures to strengthen the potential and practical skills of workers in the field of public health (national, regional levels) in accordance with the national plan. <ul style="list-style-type: none"> - Conduct a periodic assessment of the organizational, financial, and human resource capacity of the oblast disease control and prevention centers to perform the key operational functions in the field of public health in order to adjust measures for the formation of the functional sustainability of the centers - Support adequate resource provision of public health institutions at the national and regional level, in particular public health system laboratories ● Ensure the functioning of an efficient system for the surveillance of public health status and indicators and the monitoring of risk factors affecting them by strengthening cross-sectoral cooperation under "One Health" framework and integrating public health and primary healthcare services using big data technologies. ● Promote the production of diagnostic kits by national institutes, their further purchase/use after validation and approval |
|--|---|

| | | | |
|--|--|--|--|
| | <p>in particular IDPs, stay;</p> <ul style="list-style-type: none"> ● Ensure the planning and implementation of public health programs to meet the challenges of wartime; ● Address food insecurity by introducing a nutrition assistance program, including nutritional supplements and mixtures for infants; ● Expand the network of service providers for mental health, behavioral health problems related to anxiety by training non-traditional providers and providing care in non-traditional settings (schools, churches, NGOs, community health workers); ● Conduct an assessment of the level of vaccination of children throughout the country; ● Assess the damage to vaccine storage infrastructure at the regional level; ● Conduct a communication campaign among the population in order to ensure the population's access to reliable information about vaccination; ● Ensure proper funding of public health programmes, allocation of | <p>the public health sector</p> <ul style="list-style-type: none"> - Conduct an assessment of the organizational, financial and human resource capacities of the Public Health Center (baseline assessment in the first half of 2023, follow-up assessment in 2025); - Develop and approve a road map for strengthening the capacity of the Public Health Center; - Start implementation of road map measures to strengthen the capacity of the Public Health Center; - Prepare terms of reference and project estimates for updating the infrastructural facilities of the Public Health Center of the Ministry of Health of Ukraine, including equipment for the BSL-4(3) level public health laboratory, the genomic center and the national reference laboratory in accordance with the modern international standards and requirements. <p>(Reconstruction work is expected to begin in 2024)</p> <ul style="list-style-type: none"> - Develop and approve a national comprehensive plan for strengthening the staff potential and practical skills of employees in the field of health and safety | |
|--|--|--|--|

| | | |
|--|--|---|
| | <p>financial resources according to identified priorities for each area and monitoring the use of budget(s) in accordance with the established performance indicators.</p> | <p>and start the implementation of such measures;</p> <ul style="list-style-type: none"> - Create a National Training Center for the public health system on the basis of the Public Health Centre; - Implement measures to improve the supply system, logistics, and procurement procedures (equipment, medical products, materials, personal protective equipment) for the public health system throughout the country, including implementing the development of 3-year procurement plans for the public health system. - Ensure the updating of an effective vaccine storage and transportation system ("cold chain"). - Provide stock management of vaccine residue managing at the national level (setting up a system for online monitoring of residue and vaccine logistics in live time mode). - Resource the network of disease control and prevention centres in accordance with the system's needs to perform the essential public health operational functions: - Develop a mechanism for periodic assessment of the organizational, |
|--|--|---|

| | | | |
|--|--|---|--|
| | | <p>financial, and human resources capacity of the Disease Control and Prevention Centres (DCPC);</p> <ul style="list-style-type: none">- Approve the road map for the development of the network of the Disease Control and Prevention Centers and start implementation of the measures;- Start the implementation of measures to strengthen the potential and practical skills of the employees of the Disease Control and Prevention Centers in accordance with the national plan.- Create public health laboratories of BSL-3 level (biosafety level) and 1st chemical safety level for the national 24/7 response network (Kharkiv, Odesa, Lviv, Kyiv) at Public Health Centre and 3 regional Disease Control and Prevention Centers, including the development of a concept, project estimates, construction and full equipment of centers according to the standards and requirements of laboratories of this level and biosafety and biosecurity standards.- Create public health laboratories BSL-2 (biosafety level) and 2nd level of chemical safety in all Disease Control and Prevention | |
|--|--|---|--|

| | | |
|--|---|--|
| | <p>Centres as part of the national network of public health laboratories, including the development of the concept, project estimates, construction and full equipment according to the standards and requirements of the laboratories of such level and standards of biosafety and biosecurity.</p> <ul style="list-style-type: none"> - Create an immunization module. ● Ensure the functioning of an efficient system for the surveillance of public health status and indicators and the monitoring of risk factors affecting them by strengthening cross-sectoral cooperation under “One Health” framework and integrating public health and primary healthcare services using big data technologies <p>Create the list of priority communicable diseases and especially dangerous communicable diseases for the purposes of epidemiological surveillance.</p> <ul style="list-style-type: none"> - Ensure the availability of qualified specialists for the development and improvement of the capacity of the surveillance system, including for NCDs and | |
|--|---|--|

| | | |
|--|--|--|
| | <p>the laboratory network.</p> <ul style="list-style-type: none">- Strengthen the capacity of the system to detect communicable diseases, in particular, tuberculosis, viral hepatitis and HIV, with a particular focus on the territories that were temporarily occupied and most affected by the aggression of the Russian Federation- Strengthen surveillance system for healthcare-associated infections, including antimicrobial resistance.- . Train epidemiologists and other specialists of the Disease Control and Prevention Center in modern epidemiological approaches, including on issues of conducting epidemiologic surveillance for NCDs.- Implement the use of analytical epidemiology and statistical analysis methods for surveillance purposes on a routine basis, as well as the use of epidemiological data to forecast reagent needs and the load on the laboratory network.- Identify the laboratories of the health care system and the veterinary service for the detection of particularly dangerous | |
|--|--|--|

| | | | |
|--|--|---|--|
| | | <p>communicable diseases both among people and among animals according to the "One Health" principle.</p> <ul style="list-style-type: none">● Create a laboratory network that meets biosafety and biosecurity standards in accordance with WHO Laboratory Biosafety Manual, 4th edition.● Strengthen the capacity of the laboratory network to identify, verify and report public health threats and hazards in a timely manner<ul style="list-style-type: none">- Define functions and tasks for each level of laboratories, including clinical ones.- Determine the redirection system for test samples, in particular, the cases that require redirection, the level of the laboratory for redirection.- Develop procedures for the internal quality management system of public health laboratories, ensuring compliance with metrological requirements.- Develop standard operating procedures for laboratories.- Ensure the participation of laboratories in external quality assessment.- Ensure the accreditation of | |
|--|--|---|--|

| | | |
|--|--|--|
| | <p>laboratories, in particular, in accordance with the ISO17025 standard.</p> <ul style="list-style-type: none">- From 2024, provide for regular maintenance of equipment, in particular, through the creation of an appropriate division or by purchasing services.- Review, update, develop, ensure regulatory and reagent provision of laboratory algorithms for case confirmation of surveillance diseases and infections of concern- Establish requirements for diagnostic capabilities (list of necessary laboratory tests, etc.) in the system of public health laboratories at each level, in accordance with the list of diseases subject to supervision- . Evaluate the existing laboratory system, develop a recovery and development plan, including a plan for the recovery (improvement) of the infrastructure, provision of human resources and necessary equipment- Ensure reporting of laboratory data on disease cases to European surveillance systems (TESSY, EUCAST, etc.)- Provide the Disease Control and Prevention | |
|--|--|--|

| | | | |
|--|--|--|--|
| | | <p>Center with the mobile laboratories, on a wheeled base with increased cross-country ability, with appropriate laboratory equipment for conducting express research for the purpose of prompt response to hazards of biological, chemical and physical (radiation) nature.</p> <ul style="list-style-type: none">- Implement the right of the Public Health Centre to access to the existing databases of in other spheres without personal data of individuals and taking into account the confidentiality of information, in particular in the areas of ecology, veterinary medicine, justice, crop production, water resources and others- Legislatively ensure the exchange of data and research results, conduction of joint research, access to the necessary infrastructure for conducting research between the Public Health Centre, the Disease Control and Prevention, scientific institutions, non-governmental organizations conducting research in the field of public health, health care facilities and individual researchers.- When planning the research, ensure the use of modern | |
|--|--|--|--|

| | | | |
|---------------------------------------|--|---|---|
| | | <p>laboratory research methods and their comparability with international practices.</p> <ul style="list-style-type: none"> ● Ensure the planning and implementation of public health programmes to be developed on the basis of evidence concerning the health status of the population and the burden of diseases focused the determinants of health ● Determine priorities in the field of public health based on a regional analysis of the causes of morbidity, disability and mortality, taking into account the state-wide (national) strategic goals of promoting the health of the population. | |
| Deadline within the stage | June 2022 - December 2022 | January 2023 - December 2025 | January 2026 - December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Lack of consent among stakeholders | <ul style="list-style-type: none"> ● Continuation of the war on the territory of Ukraine ● Lack of state budget resources ● Lack of consent among stakeholders | <ul style="list-style-type: none"> ● Lack of state budget resources ● Lack of consent among stakeholders |
| Quality goal achievement indicator | <ul style="list-style-type: none"> ● An audit of the regulatory framework was conducted ● The Draft Law on the Public Health System (No. 4142) was adopted in the second reading and as a whole ● A road map for the development of a network of regional disease control and prevention centers has been developed | <ul style="list-style-type: none"> ● Normative and legal regulation on disease prevention and control in accordance with EU acts is ensured ● The functioning and due organizational, financial, and human resources capacity of the Public Health Centre is ensured at the national level ● The network of oblast disease control and prevention centres effectively perform the key operational functions of public | <ul style="list-style-type: none"> ● Centers for disease control and prevention throughout the country are provided with resources, including for the needs of laboratories ● Epidemiological surveillance for infectious and non-infectious diseases has been improved and strengthened ● A laboratory network that meets WHO biosafety and biosecurity standards is provided |

| | | | |
|---|--|--|--|
| | | <p>health at the regional level and is provided with the necessary resources</p> <ul style="list-style-type: none"> • The functioning of an effective system for epidemiologic surveillance of public health status and indicators is ensured and risk factors affecting them are monitored • The capacity of the laboratory network to identify, verify and report public health threats and hazards in a timely manner has been strengthened • Planning, financing and implementation of public health programs are ensured | |
| The total amount of the need for financial resources to achieve the goal | Requires calculations | UAH 5.0 billion | UAH 800 million |
| Connection of the goal with other directions | The goal is related to the implementation of the Human Development Strategy for 2021-2023 | | |
| <p>1. Identified problem to be resolved in the relevant analysis area</p> <p>The war aggravated the problems with the ability to cover a significant number of the population with vaccination and exacerbated the challenges associated with the incidence of tuberculosis, HIV, viral hepatitis, resistance to antimicrobial drugs, and outbreaks of communicable diseases. The hostilities resulted in damage to both public health facilities (centers and laboratories) and the destruction of critical infrastructure facilities, such as damage to centralized water supply and sewerage. In some areas, due to unbearable living conditions, a catastrophic lack of drinking water and food, chaotic burials within settlements, lack of access to hygiene and sanitation, the risk of individual outbreaks and epidemics of communicable diseases, including particularly dangerous diseases (for example, cholera) has increased. Prolonged stay in bomb shelters, shelters with unsatisfactory nutrition, physical activity, hygienic procedures, lack of anti-epidemic measures, on the one hand, and environmental pollution, on the other hand, will lead to delayed public health problems related to non-communicable diseases.</p> <p>Therefore, in the Recovery Plan, it is important to concentrate efforts on restoring safe conditions and environment for human activities, as well as to implement measures to minimize the impact of hostilities and other risk factors on the health and well-being of Ukrainians.</p> | | | |
| Goal to be achieved to solve the issue during each stage 2. Creating safe living conditions and living environment contributing to the preservation and promotion of health | <ul style="list-style-type: none"> • Undertake actions to address the key risk factors for combating non-communicable diseases and promoting mental health and well-being during wartime • Create conditions for food systems that | <ul style="list-style-type: none"> • Use a comprehensive multisector approach integrated with primary healthcare in addressing the issues associated with the risk factors for health at different stages of | <ul style="list-style-type: none"> • Implement comprehensive measures targeting the environmental determinants of health, including climate change, in order to create a safe, healthy environment for human activities. • Undertake actions to address the key risk factors for high burden of diseases, including by |

| | | | |
|--|---|---|--|
| | <p>promote equal access to safe, healthy and sustainable food throughout the life cycle</p> <ul style="list-style-type: none"> • Implement measures to assess and reduce environmental hazards to life and health of the population. | <p>human lifecycle to promote health equity</p> <ul style="list-style-type: none"> • Develop mechanisms for implementing the "Health in all policies" principle into the process of state policy forming and the development/approval of regulatory acts • Take comprehensive measures to promote the increase of the level of responsibility of people regarding their own health and the right to make clinical decisions • Implement comprehensive measures targeting the environmental determinants of health, including climate change • Strengthen the health care system readiness for emergency events related to climate change (extreme temperatures, other climate changes not typical for the territory of Ukraine). • Strengthen and improve the surveillance system for communicable diseases whose outbreaks may be associated with extreme temperatures. • Improve the monitoring of water quality in open water, the development of notification system of the population about its quality. • Improve atmospheric air quality monitoring systems and develop a system for early notification of the population, including measures to reduce the impact on health. | <p>strengthening the introduction of best practices ("best-buys") to combat non-communicable diseases.</p> <ul style="list-style-type: none"> • Create conditions for food systems that promote equal access to safe, healthy and sustainable food throughout the life cycle. |
|--|---|---|--|

| | | |
|--|--|--|
| | <ul style="list-style-type: none">• Develop proposals for revising building regulations and requirements for urban planning documentation to take into account climate change during planning and construction• Ensure the implementation of measures to address key risk factors that cause a high burden of disease.• Improve the legislation regarding the complete prohibition of advertising and other types of promotion of the sale of tobacco products and alcoholic beverages.• Conduct an information campaign among the population regarding the importance of increasing physical activity.• Create conditions for food systems that promote equal access to safe, healthy and environmentally friendly food throughout life:• Promote breastfeeding• Harmonize Ukrainian legislation with the EU legislation in the field of sanitary and phytosanitary standards, food safety.• Develop and adopt amendments to the regulatory acts regarding the labeling of food products (in particular, regarding the content of sugar, added sugar, trans fats and saturated fats, cholesterol). | |
|--|--|--|

| | | | |
|--|---|---|---|
| | | <ul style="list-style-type: none"> • Continue the implementation of the principles of healthy nutrition in educational institutions. • Implement measures to reduce the problem of iodine deficiency among the population, reduce the use of salt by the population of Ukraine. • Ensure the spread of favorable inclusiveness, safety, sustainability and environmental sustainability of cities and other settlements. | |
| Deadline within the stage | June 2022 - December 2022 | January 2023 - December 2025 | January 2026 - December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> • Insufficient funding • Lack of necessary expertise • Lack of understanding in the political environment of the need to create safe conditions and environment for human activity. | <ul style="list-style-type: none"> • Continuation of hostilities • Insufficient funding • Lack of necessary expertise • Lack of understanding in the political environment of the need to create safe conditions and environment for human activity. | <ul style="list-style-type: none"> • Insufficient funding • Lack of necessary expertise • Lack of understanding in the political environment of the need to create safe conditions and environment for human activity. |
| Quality goal achievement indicator | <ul style="list-style-type: none"> • An assessment of the environmental danger to the life and health of the population was carried out and a plan of measures to reduce such a threat was developed. | <ul style="list-style-type: none"> • Comprehensive multisector approach integrated with primary healthcare in addressing the issues associated with the social determinants of health is applied • Comprehensive measures aimed at environmental determinants of health have been implemented • Increased excise duties on tobacco products, expanded taxation of alcoholic products, introduced an excise tax on sugar-sweetened beverages. | <ul style="list-style-type: none"> • Residents of Ukraine have access to safe living conditions and environments that contribute to preserving and strengthening health and increasing the average life expectancy of Ukrainians. |
| The total amount of the need for financial resources to achieve the goal | Requires calculation. | Requires calculation. | Requires calculation. |

| | | | |
|---|--|--|--|
| Connection of the goal with other directions | The goal is directly related to the implementation of the Strategy for Human Development for 2021-2023, the Strategy for Environmental Security and Adaptation to Climate Change for the period up to 2030. | | |
| 1. Identified problem to be resolved in the relevant analysis area: | <p>The imperfection of the system of preparedness and response to emergency situations in public health has become one of the critical challenges of the public health system of Ukraine in the conditions of martial law. The lack of a system for preventing the occurrence, early detection and effective response to emergency situations and the practice of developing and implementing emergency preparedness and response plans in the field of public health at the national, regional and health care facility levels creates potential risks for the lives and health of Ukrainians. In order to proactively respond to biological, chemical and radiation threats and overcome the consequences of such threats, Ukraine needs to create a qualitatively new functional system of preparedness for and response to emergency situations in the field of public health.</p> | | |
| Goal to be achieved to solve the issue during each stage 3. Ensuring public health protection through prevention, early detection and effective response to emergencies | <ul style="list-style-type: none"> ● Establish a coordination cross-sectoral platform with the involvement of all stakeholders in the field of the "One Health" initiative as an advisory body on health issues in emergency situations ● Ensuring the availability and efficient functioning of the key elements of an emergency preparedness and response system in line with International Health Regulations for wartime needs: ● Implement a human resource development strategy that includes the selection, motivation, and staff training to support the public health emergency preparedness and response system; | <ul style="list-style-type: none"> ● Develop and approve a national plan, regional plans, and plans at the level of health care facility on preparedness for emergency situations in the field of public health, define the roles and responsibilities of authorized bodies, including the Public Health Center and regional disease control and prevention centers; ● Improve the electronic integrated system of monitoring and routine surveillance of all communicable diseases at all levels, ensuring coordinated analysis of epidemiological surveillance data and laboratory data. ● Create an operational information mechanism for early warning of risks and emergency situations in the field of public health ● Create an operational center for emergency situations in the field of public health, synchronized with national and international (WHO, | <ul style="list-style-type: none"> ● Ensure effective functioning of key elements of the emergency preparedness and response system in accordance with the International Health Regulations: <ul style="list-style-type: none"> - Ensure the implementation of measures to introduce the strategy for the prevention of diseases with pandemic/epidemic potential and implement measures to reduce the risk of the appearance of pathogens with a high degree of danger ● Ensure the functioning of a mechanism for activating rapid funding and actions to prevent and mitigate the consequences of emergencies ● Provide efficient and high-quality crisis communication, taking into account behavioural research data, including non-targeted alerts of citizens or their groups on public health events. ● Ensure the functioning of information and analytical tools for forecasting and modelling the development of emergencies. |

| | | |
|--|--|--|
| | <p>EU) warning and response systems;</p> <ul style="list-style-type: none">● Conduct simulation training for public health and health care workers on the early warning system.● Ensure the availability and effective functioning of key elements of the emergency preparedness and response system in accordance with the International Health Regulations (continued):<ul style="list-style-type: none">- Take into account the needs of people from risk groups, as well as communities, in emergency response plans and ensure their participation in the development of such plans;- Improve regional and national reporting systems on key indicators of preparedness and response to ensure prioritization of funding and technical assistance.● Implement strategies for the prevention of diseases with pandemic/epidemic potential and introducing measures to reduce the risk of emergence of highly dangerous pathogens:● Create an early warning system about emergencies in the field of public health and safety to launch a rapid response;● Develop and implement clear safety protocols for exposure to animal-borne infections; | |
|--|--|--|

| | | | |
|--|--|--|--|
| | | <ul style="list-style-type: none">• Ensure the functioning of a mechanism for activating rapid funding and actions to prevent and mitigate the consequences of emergencies:• Improve the procedure for the formation and use of state funds in the direction of responding to emergency situations in the field of public health;• Provide effective and high-quality crisis communication, taking into account the data of behavioral studies, including untargeted alerts of citizens or their groups regarding events in the field of public health:• Develop GESI (Gender Equality and Social Inclusion) language to warn of the threat of sexual or exploitative violence in times of crisis.• Appoint and conduct training of officials of the Disease Control and Prevention Center, departments of healthcare, healthcare facilities on issues of public relations, informing the public during emergency situations in the field of health and safety.• Conduct educational activities, social communication activities, and ensure cross-sector partnerships to improve health awareness and risk communication with an emphasis on public awareness of | |
|--|--|--|--|

| | | | |
|---------------------------------------|--|---|---|
| | | <p>emergency preparedness issues.</p> <ul style="list-style-type: none"> ● Create information and analytical tools for forecasting and modelling the development of emergencies ● Strengthen the capacity of specialists in the public health system regarding modeling and forecasting; ● Improve prognostic and other models regarding the development of extraordinary events or situations in the field of public health. | |
| Deadline within the stage | June 2022 - December 2022 | January 2023 - December 2025 | January 2026 - December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Insufficient funding ● Lack of necessary expertise ● Lack of understanding in the political environment of the need for an effective response to emergencies | <ul style="list-style-type: none"> ● Continuation of hostilities ● Insufficient funding ● Lack of necessary expertise ● Lack of understanding in the political environment of the need for an effective response to emergencies. | <ul style="list-style-type: none"> ● Insufficient funding ● Lack of necessary expertise ● Lack of understanding in the political environment of the need for an effective response to emergencies. |
| Quality goal achievement indicator | <ul style="list-style-type: none"> ● A coordination cross-sectoral platform was created with the involvement of all stakeholders in the field of the "One Health" initiative ● A strategy for the development of human resources (selection, motivation, staff training) was implemented to support the system of preparedness and response to emergencies in the field of public health ● regular forums for healthcare workers to share practices on emergency response | <ul style="list-style-type: none"> ● An operational information mechanism for early warning of risks and emergencies in the field of public health was created ● Availability and effective functioning of key elements of the emergency preparedness and response system in accordance with International Regulations is ensured. ● Strategies for the prevention of priority diseases with pandemic/epidemic potential have been implemented and | <ul style="list-style-type: none"> ● An effective public health protection system has been created through prevention, early detection and effective response to emergencies. |

| | | | |
|---|---|--|--|
| | and crisis management has been established. | <p>measures to reduce the risk of pathogens with a high degree of danger have been implemented</p> <ul style="list-style-type: none"> • A systematic review, analysis, and assessment of the system's ability to prepare for and respond to emergencies and the potential of natural disaster risk management were conducted • Effective and high-quality crisis communication is provided, in particular, regarding events in the field of health and safety • Information and analytical tools for forecasting and modeling the development of emergencies have been created. | |
| The total amount of the need for financial resources to achieve the goal | UAH 100 million | UAH 2.5 billion | UAH 440 million |
| Connection of the goal with other directions | The goal is related to the implementation of the Biosafety and Biological Protection Strategy, put into effect by the Decree of the President of Ukraine No. 668 of 12/17/2021 and the actions of the National Security and Defence Council of Ukraine. | <p>Priority 2 Financing</p> <ul style="list-style-type: none"> -to create a coordination center -on equipment | <p>Priority 2 Financing</p> <ul style="list-style-type: none"> - to create an operational center - on equipment |
| <p>1.1.4 Identified problem to be resolved in the relevant analysis area:</p> <p>Ensuring the development of the national blood system based on voluntary free donation of blood and blood components in accordance with the European safety and quality standards by creating a single centralized, cost-effective blood system under the management and coordination of the Ministry of Health of Ukraine, which guarantees the self-sufficiency of the state in blood components in peacetime and wartime. Formation and implementation of an informational component in the field of blood donation and blood components.</p> | | | |
| Goal to be achieved to solve the issue during each stage | <ul style="list-style-type: none"> • Create the National Transfusion Center as a specialized state institution in the sphere of management of | <ul style="list-style-type: none"> • Create and ensure the functioning of the National Transfusion Committee within the National Transfusion Center | <ul style="list-style-type: none"> • To ensure an increase in the volume of collection of donated blood and blood components due to an increase |

| | | | |
|--|--|---|---|
| <p>4. Ensuring the functioning of the national blood system to guarantee equal and timely access of patients to safe and high-quality components of donor blood in sufficient quantities by the state</p> | <p>the Ministry of Health of Ukraine, after the issuance of the Decree of the President of Ukraine on the termination of the legal regime of martial law, in order to ensure effective management of blood system entities and coordination of blood system activities</p> <ul style="list-style-type: none"> ● Unify approaches to calculating the cost of donated blood and blood components with the aim of transitioning to the reimbursement of the cost of blood components within the PMG, as well as forming the purchase price of plasma for fractionation ● Introduce a unified mechanism for the sale of donated blood and blood components between the participants of the blood system ● Provide legal regulation of the issue of reimbursement of the cost of donor blood components within the PMG ● Approve the procedure and conditions for the contract production of blood products from plasma for fractionation, produced by business entities producing blood products on the territory of Ukraine, with the return of blood products produced to the order of blood system entities of state and communal forms of ownership, with the definition of prices, as well as the order of contract production of blood products ● Develop and submit to the Cabinet of Ministers of Ukraine a draft resolution on the functioning of the Information Space of the Blood System ● Develop, implement and ensure the functioning of at least two modules of the Blood System Information Space to ensure the | <ul style="list-style-type: none"> ● Introduce the European standards of safety and quality of donor blood and its components in accordance with regulatory standards in the EU ● Introduce regulation through mandatory and separate licensing based on the requirements of the European Blood Institution Inspection (EuBIS). ● Strengthen the functional capacity and increase the economic efficiency of blood system entities by standardizing and streamlining the main technological processes, planning activities and performing tasks for self-sufficiency of the state with donor blood and blood components under the coordination of the National Transfusion Center. ● Ensure the functioning of the blood system at the hospital level in order to provide blood component transfusion services ● Establish surveillance procedures to collect and evaluate information on serious adverse events and serious adverse reactions in both blood and blood component donors and recipients. ● Establish a procedure for investigating serious adverse events and serious adverse reactions ● Develop, implement and ensure the functioning of all modules of the Information Space of the blood system for the proper functioning of the blood system. | <p>in the number of donors by implementing an effective communication campaign and a system of encouraging voluntary free blood and blood component donors</p> <ul style="list-style-type: none"> ● Continue the implementation of measures for the development of blood donation and blood components with the aim of self-sufficiency of the state with sufficient amounts of donor blood and blood components ● Conduct a periodic assessment of the organizational, financial and staff capacity of the national blood system in order to improve public administration measures. |
|--|--|---|---|

| | | | |
|---------------------------------------|--|--|--|
| | functioning of the blood system. | | |
| Deadline within the stage | June 2022 - December 2022 | January 2023 - December 2025 | January 2026 - December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> Continuation of hostilities Destruction of existing infrastructure Insufficient funding | <ul style="list-style-type: none"> Continuation of hostilities Destruction of existing infrastructure Insufficient funding | <ul style="list-style-type: none"> Continuation of hostilities Destruction of existing infrastructure Insufficient funding |
| Quality goal achievement indicator | <ul style="list-style-type: none"> The National Transfusion Center was created as a specialized state institution in the sphere of management of the Ministry of Health of Ukraine, after the issuance of the Decree of the President of Ukraine on the termination of the legal regime of martial law, with the aim of ensuring effective management of subjects of the blood system and coordination of activities of the blood system Issues of donor blood value and blood components are settled in order to proceed to reimbursement the value of blood components within the PMG, as well as purchase prices of plasma for fractionation based on reference pricing A single mechanism for donor blood and blood components realization between blood entities, as well as in health care facilities providing transfusion services has been introduced The procedure and conditions of contractual production of blood preparations from plasma for fractionation in accordance with the requirements of the legislation have been approved, as well as the price of contract fractionation is determined Project Resolutions on the functioning of the information space of the blood system has been developed and submitted to | <ul style="list-style-type: none"> The activities of the National Transfusion Center are ensured European standards of safety and quality of donor blood and blood components have been introduced in accordance with regulation in the EU Regulation was introduced through mandatory and separate licensing based on the requirements of the European Blood Institution Inspection (EuBIS) The coordination activity of the National Transfusion Center has been ensured to strengthen the implementation of tasks for self-sufficiency of the state with donor blood and blood components. Hospital blood banks, transfusion immunology laboratories, hospital transfusion committees in health care facilities that provide transfusion services of blood components have been established Hemomonitoring procedures and the appropriate procedure for investigating adverse reactions and cases of both blood and blood component donors and recipients have been introduced Support for the functioning of all modules of the Blood System Information Space to ensure the functioning of the blood system has been developed, implemented and provided | <ul style="list-style-type: none"> An effective blood system coordinated by the National Transfusion Center at the national level has been created, which functions on the principles of: voluntary free donation of blood and blood components; self-sufficiency of the state's need for sufficient amounts of donor blood and blood components; economic efficiency; state guarantee of equal and timely access of patients to safe and high-quality components of donor blood in sufficient quantity The annual rate of voluntary free blood donors is at least 95% of the total number The annual rate of procurement of canned donor blood is no less than 15,000 doses Annual indicator of the ratio of the number of doses of stored canned blood to the number of full-time personnel of the entity in the amount of at least 100 per individual The annual rate of write-off of erythrocyte blood components (doses) after the expiration date is no more than 5% The percentage of unfulfilled applications of health care institutions that provide transfusion services by subjects of the blood system is no more than 15%. |

| | | | |
|--|---|----------------|-----------------------|
| | <p>the Cabinet of Ministers of Ukraine</p> <ul style="list-style-type: none"> At least two modules of the information space of the blood system have been developed, implemented and maintained. | | |
| The total amount of the need for financial resources to achieve the goal | Requires calculations | UAH 30 million | Requires calculations |
| Connection of the goal with other directions | <p>The planning of measures and their implementation is closely related to the results of the implementation of the plan of measures of the National Blood System Development Strategy until 2022.</p> <p>https://zakon.rada.gov.ua/laws/show/120-2019-%D1%80%n115</p> | | |

Priority 7. Developing the electronic healthcare and strengthening of cybersecurity

1. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|---|
| Key challenges | <ul style="list-style-type: none"> • The development of electronic healthcare gave rise to an increase in the number of information and communication systems and registers, volume of data and, consequentially, the number of attacks at them; • the risks of losing or compromising personal and healthcare data of the patients are rising; • the war continues resulting in aggressive actions against critical information infrastructure; • the attackers use advanced methods and multiple ways of cyberattacks, ransomware cyberattacks and attacks via IT service providers has become the most common methods; • internally displaced persons and Ukrainians, who have been forced to move abroad, have no access to the data of their electronic medical histories, which content must meet international standards and legal requirements at the new place of residence; • in cases where medical staff members have been displaced or changed their workplaces, communication between a family doctor and patients becomes complicated and requires their remote interaction or a patient must choose a new family doctor and remotely issue a new declaration; • due to remote interaction between patients and doctors, the number of telemedicine consultations is expected to increase, and the scope of medical services, in addition to traditional ones, will include increased demand for rehabilitation services and mental health services. It is important for healthcare institutions to receive feedback from their patients about the quality of medical services provided. • the rapid development of donation of blood and blood components and the national blood system operation demand the use of new specialized electronic tools; • Healthcare institutions require maximum efficient management of medicines and medical devices stock using an electronic record-keeping system; • there is a large number of existing electronic registers and databases in healthcare sector, and in order to use them efficiently, optimization is required. |
| Key possibilities | <ul style="list-style-type: none"> • The use of information and communication systems in healthcare sector has become an integral part of healthcare reform, which has significantly changed the principles of providing and financing medical care in Ukraine. Russia's full-scale invasion has posed new challenges related to the need to improve cyberdefense of information and communication systems and to develop an electronic healthcare system in general. • Improvement and extension of the functions of the electronic healthcare system and other healthcare information and communication systems using the widespread international standards and classifications will enable the implementation of the priority areas of state healthcare policy. • Improving and expanding the functionality of electronic healthcare system and other healthcare information and communication systems using modern artificial intelligence technologies, telemedicine and other innovative solutions will allow ensuring the quality and accessibility of healthcare, as well as the transparency and efficiency of management decisions based on received data. • Analysis of existing forms of medical and statistic documents in the healthcare sector and a gradual transition from paper-based medical records to structured electronic medical records will improve the quality of data collection and ensure their receipt in real-time mode to effectively respond to current changes in the healthcare sector, as well as reduce the burden on healthcare workers. |

| | |
|-----------------|--|
| | <ul style="list-style-type: none"> Improving the analytical capabilities of healthcare institutions and implementing innovative solutions will contribute to further development of data use. Implementing electronic patient account and ensuring patients' access to their personal data and other functional capacities of the electronic healthcare system. Strengthening the social and economic connections between the EU and Ukraine and the intensive migration of the population will result in the necessity of the integration with the global healthcare information space with cross-border interoperability of the Ukrainian electronic healthcare system and electronic healthcare systems of other countries of Europe and the world. The widespread introduction of telemedicine services in healthcare facilities will improve the availability of healthcare services in remote areas. |
| Key limitations | <ul style="list-style-type: none"> Insufficient level of computerization, ensuring high-speed Internet connection, digital competence of medical staff, as well as coverage by electronic medical information systems of healthcare service providers, in particular private ones. Healthcare consumers also have limited digital competence, under-informed about healthcare issues and the use of healthcare data. The use of electronic healthcare system and other information and communication systems data is limited in the healthcare sector of Ukraine, and the decision-making system based on the data obtained is not widely used. Special risks associated with processing of personal and sensitive patient's data and compliance with national legislation on the protection of personal data should be taken into account. The continuation of a full-scale war results in limitations imposed on project implementations throughout Ukraine. Human resources are limited, some cybersecurity specialists are involved in ensuring national defence; Due to the martial law and the condition of the national economy, there are certain limitations on budget financing of the projects and support for the existence and development of information and communication systems, their cyberdefense. |

2. Goals, tasks and stages of the Recovery Plan within the direction “Developing the electronic healthcare and strengthening of cybersecurity”

2.1. Goals aimed at resolving the identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|--|-------------------------------------|--|--|
| Identified problem to be resolved in the relevant analysis area | | | |
| <p>The main problems that need to be solved today are:</p> <p>insufficient efficiency of electronic healthcare system, which, in particular, is characterized by:</p> <ul style="list-style-type: none"> - doctors' lack timely and standardized patients' information, which leads to duplication of consultations, laboratory tests, other medical services at various levels of medical care provision and to spending resources in an inefficient manner; - the use by healthcare professionals and healthcare institutions of inefficient tools related to maintenance of lots of paper-based medical documentation forms and collection of statistic data that needs to be reviewed and evaluated in terms of its impact on health care system's operational performance; extensive form of keeping medical records and insufficient information about the patient's health. <p>Information about the patient's health is fragmented: primary health records are stored by various healthcare service providers, mainly in a paper-based form, which leads to administrative burden on healthcare workers and time-consuming processes; lack of the information about the patient's health outside the relevant healthcare facility, high probability of its loss, low capacities for monitoring, controlling and managing healthcare services quality;</p> | | | |

limited accessibility of medical services. The regions of Ukraine differ by their coverage by the network of healthcare institutions, a lack of qualified medical personnel, a disproportionate territorial distribution of medical professionals (concentration in cities, insufficient human resources in rural areas), resulting in the demand for healthcare via means of remote communication. Collection and formation of medical statistics are disconnected from each other in the process, there is no reliable validation and verification of primary data used to generate statistical reporting. Underdeveloped national healthcare IT infrastructure, in particular staff capacities and level of digital competence of healthcare workers, as well as insufficient computerisation of healthcare facilities.

| | | | |
|---|---|---|--|
| <p>Goal to be achieved to solve the issue during each stage</p> <p>1. Developing a single medical information space featuring national and cross-border interoperability and end-to-end processes and services</p> | <ul style="list-style-type: none"> Ensuring integration of the e-health system with the key public registers | <ul style="list-style-type: none"> Conducting a thorough analysis and preparing a visualised model of the structure of the medical card in the electronic healthcare system taking into account important standards and requirements (HL7, FHIR, CDA) in the sector and current regulatory requirements, and implementing the medical card Developing, implementing and maintaining interoperability and data exchange between the key information and communication systems and healthcare registers | <ul style="list-style-type: none"> Harmonisation of national standards with common global standards and classifications, introduction of internationally recognised and wide-spread standards in Ukraine for the further integration with the global information space Ensuring the interoperability of the Ukrainian electronic healthcare system with the electronic healthcare systems of other countries of Europe and the world |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities; lack of initiative from other countries of Europe and the world |
| Quality goal achievement indicator | <ul style="list-style-type: none"> Integration of the e-health system with the SFS (PFU) Workplace Register, Personal Taxpayer Number Register of the State Tax Service, the Unified State Demographic Register and the State Register of Civil Status Acts in ensured | <ul style="list-style-type: none"> A comprehensive analysis is conducted and a visualised model of the structure of the medical card in the electronic healthcare system is prepared, taking into account important standards and requirements (HL7, FHIR, CDA) in the sector and current regulatory requirements, and the medical card is implemented Development, implementation, | <ul style="list-style-type: none"> National standards are harmonised with common global standards and classifications, the recognised and wide-spread standards are implemented in Ukraine. Technical conditions are created and interoperability of the Ukrainian electronic healthcare system with the electronic healthcare systems of at least 10 countries of Europe and the world is ensured in accordance with the |

| | | | |
|--|--|---|--|
| | | interoperability and data exchange between electronic healthcare system and electronic integrated infectious diseases surveillance system (EIDSS), SSD information system, blood information system, the state single transplantation information system, MedData information and analytical system and eStock electronic system for the management of stocks of medicines and medical devices are ensured | established standards and data exchange protocols, particularly the FHIR international standard |
| Total funding requirement for the goal achievement | ≈UAH 60 million | ≈ UAH 600 million | ≈UAH 400 million |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | Public Health and Digitalization |
| Goal to be achieved to solve the issue during each stage | ● Development of key requirements to the technical infrastructure of healthcare providers and informatisation of healthcare facilities | ● Ensuring development of the national healthcare informatisation infrastructure that includes proper computerisation conditions, and ensuring access to fast internet for healthcare providers. ● Extending the functional capacities of the electronic healthcare system and other healthcare information and communication systems for ensuring quality and accessibility of medical services ● Ensuring the accessibility of electronic healthcare services for users/patients with visual, hearing, musculoskeletal, speech and intellectual development impairments, as well as patients with various combinations of impairments | ● Full-fledged implementation of telemedicine and intelligent clinical decision making support systems, big data processing systems and artificial intelligence technologies |
| 2. Providing infrastructural and technical conditions for the provision of quality medical services using information and communication systems at all the levels | | | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |

| | | | |
|--|---|---|--|
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities |
| Quality goal achievement indicator | <ul style="list-style-type: none"> Key requirements to the technical infrastructure of healthcare providers and informatisation of healthcare facilities are developed | <ul style="list-style-type: none"> 80% of healthcare providers meet the indicators for the implementation of modern national healthcare informatisation infrastructure. The functional capacities of the electronic healthcare system and other healthcare information and communication systems are extended, more than 30 new electronic services are introduced for ensuring quality and accessibility of medical services. Requirements on ensuring adherence to the DSTU ISO/IEC 40500:2015 "Information technologies. Guidelines on the accessibility of web-content W3C (WCAG) 2.0" standard are included in the terms of reference for the development of electronic healthcare software | <ul style="list-style-type: none"> Telemedicine and intelligent clinical decision making support systems, big data processing systems and artificial intelligence technologies are implemented at all levels. |
| Total funding requirement for the goal achievement | ≈ UAH 1 million | ≈ UAH 2.5 billion | ≈ UAH 700 million |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | Public Health and Digitalization |
| Goal to be achieved to solve the issue during each stage 3. Transition to paperless records and ensuring electronic mechanisms for data collection and quality control, visualisation and analysis of public | <ul style="list-style-type: none"> Developing and starting implementation of the healthcare digitalization roadmap | <ul style="list-style-type: none"> Replacing the data model and enabling transition from paper-based medical and statistical documents to structured electronic medical records Introduction of healthcare data collection mechanisms through information and communication systems, | <ul style="list-style-type: none"> Creating a data science centre and developing IT innovations using the advantages of big data processing and intelligent systems for forecasting healthcare needs |

| | | | |
|---|--|--|--|
| data in the healthcare sector | | <p>including private healthcare providers, as well as control of their quality</p> <ul style="list-style-type: none"> • Re-organization of the methodology of healthcare statistical analysis formulation | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities |
| Quality goal achievement indicator | <ul style="list-style-type: none"> • The healthcare digitalization roadmap is developed and its implementation is started | <ul style="list-style-type: none"> • The data model is replaced and the transition from paper-based medical and statistical documents to structured electronic medical records is ensured. • Healthcare data collection systems are introduced through information and communication systems, including private healthcare providers, as well as control of their quality. • The re-organization of the methodology of healthcare statistical analysis formulation is performed | <ul style="list-style-type: none"> • A centre for statistical and research analysis of medical data and necessary technical infrastructure ensuring data processing was established, in particular for the following purposes: <ul style="list-style-type: none"> - receiving aggregated population data for decision-making while developing healthcare policies; providing access to depersonalised data for scientific and research purposes; - using the results of the analysis in the sphere of clinical research, biobanking, etc. • Development of IT innovations and use of the advantages of big data processing and intelligent systems for forecasting healthcare needs and resource planning is ensured |
| Total funding requirement for the goal achievement | ≈ UAH 20 million | ≈ UAH 400 million | ≈ UAH 300 million |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | Public Health and Digitalization |
| Goal to be achieved to solve the issue during each stage | <ul style="list-style-type: none"> • Introduction of the first phase of the patient account (displaying and signing declarations with family doctors by the patients) | <ul style="list-style-type: none"> • Ensuring patients' access to their personal data and other functional capacities of the electronic healthcare system through the electronic patient account | |
| 4. Creating friendly and transparent mechanisms for user access to the | | | |

| | | | |
|--|--|---|--|
| comprehensive data on their health and management of this information | | | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | |
| Quality goal achievement indicator | The first stage of the patient account has been introduced (displaying and signing declarations with family doctors by the patients) | Patients' access to their personal data and other functional capacities of the electronic healthcare system through the electronic patient account is ensured | |
| Total funding requirement for the goal achievement | ≈ UAH 30 million | ≈ UAH 100 million | |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | |
| Goal to be achieved to solve the issue during each stage | ● Development of the healthcare cybersecurity concept; beginning of creation of the sectoral Cybersecurity centre for the coordination, analysis and development of healthcare cybersecurity policy, as well as for the response to cyberthreats | ● Full implementation of the healthcare cybersecurity concept at different levels and the sectoral Cybersecurity Centre ● Ensuring the cybersecurity, monitoring, protection and analysis of potential interferences, losses and damages of healthcare information and communication systems and registers | ● creating a system for management and maintenance of the largest health information and communication systems and registers using distributed registers (blockchain) technology, which will significantly increase their resilience |
| 5. Ensuring cybersecurity and information protection | | | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities |
| Quality goal achievement indicator | ● The concept is developed and a sectoral Cybersecurity centre for the coordination, analysis and development of healthcare cybersecurity policy, as well as responding to cyberthreats, is created | ● The healthcare cybersecurity concept is implemented in full at different levels as well as the sectoral Cybersecurity Centre. ● The cybersecurity, monitoring, protection and analysis of potential interferences, losses and damages of healthcare | ● A system for management and maintenance of the largest health information and communication systems and registers using distributed registers (blockchain) technology to significantly increase their resilience is created |

| | | | |
|--|---|---|--|
| | | <p>information and communication systems and registers are ensured, namely:</p> <ul style="list-style-type: none"> - sectoral cyberthreat response centres (Security operation centres) and sectoral healthcare CIRT groups are created - SIEM (Security information and event management) systems for monitoring and analysis of cyber incidents and SOAR (Security Orchestration, Automation and Response) automatic healthcare cyber incident response systems are implemented; - other programmes and platforms required to detect vulnerabilities in systems, programmes, healthcare registers, and continuous monitoring of rapidly evolving cyberthreats are introduced | |
| Total funding requirement for the goal achievement | ≈UAH 50 million | ≈UAH 500 million | ≈UAH 500 million |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | Public Health and Digitalization |
| Goal to be achieved to solve the issue during each stage 6. Development and maintenance of digital competencies of information technology users in the healthcare sector | <ul style="list-style-type: none"> ● Disseminating information materials to facilitate developing of digital competencies of information technology users in the healthcare sector ● Updating the general qualification requirements to healthcare specialties regarding the required knowledge and skills of modern information technologies | <ul style="list-style-type: none"> ● Introducing programmes and training on cybersecurity and cyber hygiene for users of electronic medical technologies to ensure the compliance with personal data storage requirements and standards. ● Improving digital competence of healthcare workers and fully integrating the requirements of the conceptual and reference digital competency framework | <ul style="list-style-type: none"> ● Updating the requirements of the conceptual and reference digital competency framework for health professionals, taking into account innovative solutions and technologies |

| | | | |
|---------------------------------------|---|---|---|
| | | <p>for health professionals to professional standards, training and professional development system, requirements for staff recruitment, attestation and certification, incentivizing healthcare workers</p> <ul style="list-style-type: none"> • Implementing digital services of public accountability to enable public and patient oversight of the availability and quality of healthcare services | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities |
| Quality goal achievement indicator | <ul style="list-style-type: none"> • Information materials for the development of digital competencies of information technology users in the healthcare sector have been disseminated. • The general qualification requirements to healthcare specialties regarding the required knowledge and skills of modern information technologies are updated | <ul style="list-style-type: none"> • The programmes and training on cybersecurity and cyber hygiene for users of information technologies in the sphere of healthcare to ensure the compliance with personal data storage requirements and standards • Digital competence of healthcare workers is improved and the requirements of the conceptual and reference digital competency framework for health professionals is fully integrated into professional standards, training and professional development system, requirements for staff recruitment, attestation and certification, healthcare workers are incentivized • Digital services of public accountability to enable public and patient oversight of the availability and quality of | <ul style="list-style-type: none"> • The requirements of the conceptual and reference digital competency framework for health professionals, taking into account innovative solutions and technologies are updated |

| | | | |
|---|---|---|----------------------------------|
| | | healthcare service are implemented | |
| Total funding requirement for the goal achievement | ≈UAH 20 million | ≈UAH 100 million | ≈UAH 5 million |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | Public Health and Digitalization |
| Goal to be achieved to solve the issue during each stage 7. Sustainable institutions operating under a clearly defined management model ensuring flexibility and efficiency of e-health development | Launching committees into operation to manage e-health | Ensuring the development of sustainable institutions with a clearly defined management model and sustainable resource support for e-health capable of responding to rapid changes and emergencies | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | Lack of adequate financial and human resources to implement tasks; lack of political will; active hostilities | |
| Quality goal achievement indicator | Committees for e-health management are launched into operation | Sustainable institutions with a clearly defined management model and sustainable resource support for e-health capable of responding to rapid changes and emergencies are developed | |
| Total funding requirement for the goal achievement | no need | ≈UAH 10 million | |
| Links between the goal and other directions | Public Health and Digitalization | Public Health and Digitalization | |

Priority 8. Strengthening national- and local-level quality management system

1. Key issues to be solved within the framework of the Recovery Plan

| Impact of the war on the defined analysis area: | |
|---|--|
| Key challenges | <ul style="list-style-type: none"> • Unsatisfactory situation with regard to quality of medical services provided • Fragmentation and lack of certain important elements of the quality assurance system in the healthcare sector • Ignoring world's best practices in many aspects of quality management • Lack of a holistic vision of the quality system among various stakeholders • Decentralisation-related risks |
| Key possibilities | <ul style="list-style-type: none"> • Centralization of healthcare facilities network management at the national and regional levels • Engagement of international expertise into recovering/building a qualitatively new healthcare system • Potential funding from international sources |
| Key limitations | <ul style="list-style-type: none"> • Economic and social crisis caused by the full-scale war of the Russian Federation against Ukraine • Unpredictable finishing date of the war • Lack of qualified personnel to build a quality management system at all levels of the system |

2. Goals, tasks and stages of the Recovery Plan within the direction "Strengthening national- and local-level quality management system"

2.1. Goals aimed at resolving the identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|---|--|---|---|
| <p>The quality management system in the healthcare sector was fragmented in the pre-war period, while during the war, the focus is on the availability of medical care.</p> <p>Quality should be ensured by the management system at the national, regional and local levels and should be a measurable category. According to these dimensions, the healthcare in Ukraine should become safer, more efficient, timely, cost-effective, fair and human-centric. To this end, an appropriate environment should be created through improvement of registration and licensing processes, external quality assessment, contracting based on healthcare institution performance, clinic management, public reporting and comparative analysis, training of medical professionals and mentoring system. Prevention of damage during provision of healthcare and rehabilitation services will be ensured by inspecting of healthcare institutions, introducing of safety checklists and protocols, improvement of the system of registration of undesirable events during receiving healthcare services. To improve in-patient medical care, it is necessary to widely implement clinical guidelines, standards, protocols and clinical routes; creation of quality groups at institutions, the introduction of tools such as clinical audit and quality improvement cycles. Engagement and empowerment of patients and their families to participate in the processes of creating, providing and improving health services should also become important elements of the quality management system, as well as striving to control all aspects of their own health.</p> | | | |
| Goal to be achieved to solve the issue during each stage | <p>1. Developing and implementing quality assurance system elements in healthcare at the national level</p> <ul style="list-style-type: none"> • Developing and coordinating between stakeholders a long-term concept of quality and patient safety in the healthcare system. <ul style="list-style-type: none"> – Delineating the areas of responsibility among stakeholders and approving the concept of quality and safety of patients in the healthcare system | <ul style="list-style-type: none"> • Approving a long-term concept of quality and patient safety in the healthcare system. <ul style="list-style-type: none"> – Identifying, elaborating and implementing the list of healthcare standards – Introducing the risk management system and damage prevention at all levels | <ul style="list-style-type: none"> • Ensuring implementation of a long-term concept of quality and patient safety in the healthcare system. <ul style="list-style-type: none"> – Continuously adhering to healthcare standards – Ensuring sustainable operation of the risk management and damage prevention system at all levels |

| | | | |
|--|--|---|--|
| | <ul style="list-style-type: none"> • Updating and harmonising with the EU legislation of the regulatory framework regarding quality and patient safety <ul style="list-style-type: none"> – Elaborating a Draft Law On Amending the Fundamentals of the Legislation of Ukraine on Healthcare concerning healthcare quality assurance; the definitions, subjects and objects of external assessment of healthcare quality and patient safety | <ul style="list-style-type: none"> – Creating a single register of doctors, rehabilitation professionals and nurses with multilevel access • Updating and harmonising with the EU legislation of the regulatory framework regarding quality and patient safety <ul style="list-style-type: none"> – Reviewing current regulations and adopting new ones that will ensure compliance with the EU acquis communautaire – Adopting a Law On Amending the Fundamentals of the Legislation of Ukraine on Healthcare concerning healthcare quality assurance; the definitions, subjects and objects of external assessment of healthcare quality and patient safety • Establishing a national institution for healthcare quality and patient safety and ensuring regular external assessment of HCFs with the publication of results <ul style="list-style-type: none"> – Elaborating a draft Regulation On the Quality Assurance Agency in Healthcare Sector (goals, objectives, functions, powers) – Establishing a quality assurance agency in healthcare sector; identifying, substantiating and approving the organizational chart and staff structure, searching | <ul style="list-style-type: none"> • Ensuring a regular external evaluation of the healthcare facility activities with the evaluation results published <ul style="list-style-type: none"> – Developing a national agency for healthcare quality and patient safety – Conducting a baseline quality evaluation in HCFs – Creating the rating of HCFs – Launching a regular HCF evaluation process – Ensuring sustainable updating of the rating of HCFs based on the evaluation findings • Ensuring sustainable contracting within the NHS in view of the quality of services provided by healthcare facilities <ul style="list-style-type: none"> – Reviewing medical guarantee program packages with incorporating the quality standards, incorporating them in contracts with HCFs – Ensuring a system of reporting and verification against the set of indicators for "result-based payment" including functionality of the e-healthcare system • Developing a system of Medical Technology Assessment extending it to service delivery models, clinical interventions and public health measures <ul style="list-style-type: none"> – Ensuring MTA is conducting as a prerequisite for centralised public procurement |
|--|--|---|--|

| | | | |
|--|--|---|---|
| | | <p>for/training of professionals</p> <ul style="list-style-type: none"> - Elaborating a national quality assessment system (quality indicators to be harmonised with the OECD and integrated into the e-healthcare system) - Developing and implementing educational activities on quality issues: launching a quality management system at the institution level; quality standards; quality assessment procedure - Launching a national awareness campaign for HCFs on the quality assessment system being introduced <ul style="list-style-type: none"> ● Introducing a contracting system within the NHS in view of the quality of services provided by healthcare facilities <ul style="list-style-type: none"> - Developing medical guarantee program packages incorporating quality standards, incorporating them in contracts with HCFs - Ensuring a system of reporting and verification against the set of indicators for the introduction of "result-based payment" including functionality of the e-healthcare system ● Develop a system of Medical Technology Assessment (MTA) extending it to service delivery models, clinical interventions | <ul style="list-style-type: none"> - Human capacity building with MTA at the national level <ul style="list-style-type: none"> ● Improving a clinical recommendation and standard development system <ul style="list-style-type: none"> - Ensuring sustainable use of clinical decision-making support systems - Engaging professional associations, HCFs, patient associations to elaboration/adaptation of clinical recommendations on regular basis |
|--|--|---|---|

| | | | |
|--|--|--|--|
| | | <p>and public health measures</p> <ul style="list-style-type: none"> - Expanding, supplementing and harmonising the MTA-related regulatory framework based on the international practices - Clearly splitting up responsibility between organisations, for MTA, transparency of processes and public reporting of organizations dealing with MTA - Before the launch of centralized procurement, shaping a state request with MTA - Human capacity building with MTA at the national level <ul style="list-style-type: none"> ● Improving a clinical recommendation and standard development system - Harmonizing the regulatory framework on development/adaptation and adoption of clinical recommendations in healthcare with the EU legislation - Introducing the systems to support clinical decision-making - Engaging professional associations, HCFs, patient associations to elaboration/adaptation of clinical recommendations - Harmonising Technical Regulations on Medical Products of | |
|--|--|--|--|

| | | Ukraine with the EU Regulations | |
|---------------------------------------|---|---|---|
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> lack of understanding of ensuring quality system in the field of healthcare by the political circles | <ul style="list-style-type: none"> Lack of funding Lack of required expertise lack of understanding of ensuring quality system in the field of healthcare by the political circles | <ul style="list-style-type: none"> Lack of funding Lack of required expertise lack of understanding of ensuring quality system in the field of healthcare by the political circles, |
| Quality goal achievement indicator | <ul style="list-style-type: none"> Areas of responsibility among stakeholders and the concept of quality and safety of patients in the healthcare system are approved Draft Law On Amending the Fundamentals of the Legislation of Ukraine on Healthcare concerning healthcare quality assurance; the definitions, subjects and objects of external assessment of healthcare quality and patient safety is elaborated | <ul style="list-style-type: none"> The regulatory framework regarding quality and patient safety is updated and harmonised with the EU legislation A national quality assurance institution is created Healthcare standards are developed and approved Risk management system and damage prevention is introduced at all levels A national quality assessment system is developed, which is harmonised with the OECD and integrated into the E-healthcare system, including a system of quality indicators Health technology assessment system is improved: (1) the legal framework is updated, (2) organizational responsibility for HTA is shared, (3) transparency of processes and public reporting are established, (4) a state request for HTA is created before the launch of a central procurement A clinical recommendation and standard development system is improved | <ul style="list-style-type: none"> The standards required to ensure the proper functioning of the healthcare system are introduced A regular external evaluation of the healthcare facility activities is ensured with the evaluation results and the rating of healthcare facilities published A contracting system within the NHS is introduced in view of the quality of services provided by healthcare facilities Evidence-based (EBP) and value-based (VBP) practices are routinely applied in the daily operations of healthcare facilities as part of clinical management |

| | | | |
|---|--|---|--|
| | | <ul style="list-style-type: none"> • Clinical decision-making support systems are introduced | |
| Total funding requirement for the goal achievement | | UAH 8 billion | |
| Links between the goal and other directions | | <p>Priority 2. Funds</p> <ul style="list-style-type: none"> - to establish a public authority - to purchase equipment <p>Line: Public Administration</p> | |
| <p>Goal to be achieved to address the issue at each stage</p> <p>2. Developing and implementing quality assurance system elements in healthcare at the healthcare facilities level</p> | | <ul style="list-style-type: none"> • To introduce Clinical Management Systems in healthcare facilities <ul style="list-style-type: none"> – To introduce clinical audit and clinical risk management procedures – To involve patients/patient organisations in the development and evaluation of routes based on clinical recommendations – To introduce quality improvement tools involving staff (quality assurance groups, peer groups, etc.) – To use IT solutions to support clinical decisions – To support and apply evidence-based (EBP) and value-based (VBP) practices – To develop risk/adverse event reporting procedures developing the culture of open reporting • To introduce a monitoring and internal service quality assessment system <ul style="list-style-type: none"> – To develop and introduce an internal quality assessment procedure and tools – To provide training for healthcare specialists to be responsible for | <ul style="list-style-type: none"> • To ensure the use of Clinical Management Systems in healthcare facilities <ul style="list-style-type: none"> – To ensure the development and evaluation of routes based on clinical recommendations involving patients/patient organisation members – To ensure the sustainable use of the quality improvement tools involving staff – To promote the use of IT solutions to support clinical decisions – To apply evidence-based (EBP) and value-based (VBP) practices on a regular basis – To introduce risk/adverse event reporting procedures developing the culture of open reporting • To ensure that the quality of services is controlled and internally assessed <ul style="list-style-type: none"> – To ensure regular internal quality assessment and ensure its control in healthcare facilities with mandatory public reporting of the results |

| | | | |
|--|--|---|--|
| | | <p>internal quality assessment</p> <ul style="list-style-type: none"> - To introduce regular internal quality assessment and ensure its control in healthcare facilities with mandatory public reporting of the results - To introduce first aid quality indicators - To introduce key performance indicators for managers of healthcare facilities in public and communal ownership <p>● To introduce quality-oriented HR management approaches</p> <ul style="list-style-type: none"> - To introduce a number of incentive mechanisms for the staff (individual contracts, grades, etc.) - To strengthen the ability of associations to proactively participate in the elaboration of policies and regulation of the quality assurance system in healthcare <p>● To engage and empower patients, families, and communities</p> <ul style="list-style-type: none"> - To provide training for medical staff to ensure the building of relationships of trust and partnership with patients and their families - To collect feedback on a regular basis and evaluate patient satisfaction with their experiences of receiving healthcare and other services | <ul style="list-style-type: none"> ● To engage and empower patients, families, and communities - To collect feedback on a regular basis and evaluate patient satisfaction with their experiences of receiving healthcare and other services - To ensure the sustainable involvement of patient communities in the corporate management of healthcare facilities, new service planning, local program evaluation, etc. |
|--|--|---|--|

| | | | |
|---------------------------------------|--|---|--|
| | | <ul style="list-style-type: none"> - To involve patient communities and community members in the corporate management of healthcare facilities, new service planning, and local program evaluation - To introduce a mechanism for the involvement of the ATC residents in the planning and management of healthcare services through public hearings - To ensure the independence of the forensic medical examination with it being controlled by the Ministry of Justice rather than the Ministry of Healthcare - To introduce individual licences for doctors and rehabilitation specialists to practice medicine | |
| Deadline within the stage | June 2022 – December 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● Lack of funding ● Lack of required expertise ● lack of understanding of ensuring quality system in the field of healthcare by the political circles, | <ul style="list-style-type: none"> ● Lack of funding ● Lack of required expertise ● lack of understanding of ensuring quality system in the field of healthcare by the political circles, | <ul style="list-style-type: none"> ● Lack of funding ● Lack of required expertise ● lack of understanding of ensuring quality system in the field of healthcare by the political circles, |
| Quality goal achievement indicator | | <ul style="list-style-type: none"> ● Clinical Management Systems are introduced at the level of healthcare facilities: (1) clinical audit; (2) quality improvement tools; (3) IT solutions to support clinical decisions, etc. ● Monitoring and service internal quality assurance are | <ul style="list-style-type: none"> ● Healthcare facilities conduct regular internal quality assessment with results being publicly published ● Patients, their families and communities are actively involved in the quality management system in healthcare facilities, their opportunities are |

| | | | |
|--|--|---|---|
| | | <p>implemented at HCF level</p> <ul style="list-style-type: none"> ● A number of incentive mechanisms for the staff are introduced ● A unified register of healthcare workers with multi-level access is created ● The power of associations is strengthened; they participate in the elaboration of policies and regulation of the quality assurance system | <p>expanded, for example: (1) feedback is regularly collected, including assessment of patient satisfaction with their experiences of receiving medical and other services; (2) patient community members are involved in the corporate management of healthcare facilities, new service planning, local program evaluation, etc.</p> |
| Total funding requirement for the goal achievement | | Funding is included as Priority 7 as it pertains to register creation | |
| Links between the goal and other directions | | Priority 7 Information systems in healthcare | |

Analysis area (of a specific component) within the direction:**Priority 9. Recovering pharmaceutical sector, improving accessibility and proper use of medicines**

Impact of the war on the defined analysis area:

| | |
|-------------------|---|
| Key challenges | <ul style="list-style-type: none"> • Dangerous environment and impossibility for pharmaceutical sector operators to conduct operations within the occupied territories • Destruction of critical infrastructure within the de-occupied territories and potential danger of shelling regardless of the location make it impossible to ensure normal production, storage, distribution and creation of conditions for access of patients to medicinal products • Large-scale evacuation and emigration of the population caused a sharp decline in the number of healthcare workers in the regions. • Additional internal displacement of the population resulted in the imbalance in the demand for certain categories of pharmaceutical products and the need for the provision of associated services compared to the pre-war period in a number of regions • A significant increase in the demand and use of emergency and life-saving medicinal products compared to the pre-war period resulted in a sharp drop in the stocks of such products • Complicated access to the remaining stock of pharmaceutical products purchased out of state budget funds at the central and regional levels, on the one hand, and the period required to form a proper humanitarian aid distribution system, on the other hand, resulted in the lack of medicinal products in healthcare facilities on a number of cases • Increasingly limited access to vital treatment for patients with chronic and socially significant diseases may result in increased morbidity, the development of resistance to certain groups of therapeutic schemes and irreparable consequences for the health of patients in case of disease decompensation • Limited access to fuel, national currency volatility, political and regulatory processes introduced under martial law in Ukraine |
| Key possibilities | <ul style="list-style-type: none"> • The national healthcare system transformation processes are introduced and partially implemented, including those in the pharmaceutical sector, which currently creates a great potential for further process improvement/renewal. • The overall political course regarding the acceleration of Ukraine's accession to the European Union prioritising the harmonisation of the legal framework with European practices and standards. • Expansion and active interaction with the international community to strengthen the scientific, technical and procedural potential in the area of production, distribution and control of pharmaceutical product circulation. • Continued institutionalisation of medical technology assessment processes in accordance with the concepts as developed and approved. |
| Key limitations | <ul style="list-style-type: none"> • Completely or partially destroyed production infrastructure and supply chains; limited access of patients to medicinal products. • Lack of relevant and trustworthy data for strategic and operational decision-making, intensive dynamics of changes in the basic parameters of the population, infrastructure and needs in medicinal products, challenges in creating scenarios, assumptions and models of recovery and development • Lack of international expertise for strengthening healthcare policies and institutions during armed conflicts of similar scale • The need to strengthen the procurement option at the regional level • Shortage of human resources required to harmonise national practices with the EU, including, but not limited to, the implementation of strict regulatory practice standards, bioequivalence and a national medicinal product verification system. |

2. Goals, tasks and stages of the Recovery Plan within the direction "Recovering pharmaceutical sector, improving accessibility and proper use of medicines"

2.1. Goals aimed at resolving the identified problems:

| | Stage 1: June 2022 – end of 2022 | Stage 2: January 2023 – December 2025 | Stage 3: January 2026 – December 2032 |
|--|----------------------------------|---------------------------------------|---------------------------------------|
| 1. Identified problem to be resolved in the relevant analysis area | | | |

Since the beginning of the Russian invasion of Ukraine, the access of patients to pharmaceutical products has become increasingly difficult, regardless of the source of distribution, be it a government procurement system or a pharmaceutical retail sector. First of all, the war caused a shortage of key medicinal products, especially vital medicinal products. A severely damaged and in some cases destroyed distribution infrastructure is a major factor in drastically limiting access to therapeutics in both the public and private pharmaceutical sectors. The need to harmonise national policies with the best global practices and the introduction of innovative sectoral mechanisms to improve patients' access to effective, safe and high-quality medicinal products are of paramount importance for the pharmaceutical sector.

Eventually, it is necessary to facilitate the development of the pharmaceutical industry in Ukraine with a focus on fostering investment in R&D, localisation and other methods for exploring new technologies of the production of medicinal products and medical devices, promoting clinical trials in Ukraine and other state-of-art tools aimed at reinforcing the sector:

The damage to the healthcare system caused by war, including the pharmaceutical sector, is increasing every day, so it is important to ensure a quick response to the challenges existing today and the implementation of measures contributing to the speedy recovery of the healthcare sector, including the pharmaceutical sector.

| | | | |
|---|--|--|--|
| <p>Goal to be achieved to solve the issue during each stage</p> <p>1. Recovering pharmaceutical sector, improving accessibility and proper use of medicines.</p> | <ul style="list-style-type: none"> Update the National List of Essential Medicines with new drugs in line with recommendations made as a result of the medical technology assessment Adopt as a whole the new version of the Law of Ukraine <i>"On Medicinal Products"</i>, No. 5547 of 21.5.2022. Complete and finalize benchmarking in line with WHO recommendations regarding establishment of a strict regulatory system in Ukraine | <ul style="list-style-type: none"> Ensure transition from the National List of Essential Medicines to the single Positive List of Medicines procured with public funds, and its regular updating, accordingly. Ensure implementation of provisions of the new version of the Law of Ukraine <i>"On Medicinal Products"</i> Adopt the draft Law of Ukraine <i>"On Medicinal Products"</i> Ensure full functioning of such instruments to access innovative treatments as managed access contracts and the PMG expansion due to assessment of medical technologies. Create an independent Agency to assess medical technologies as a single expert body that ensures validity and evidence base for selection and efficacy assessment of medicines, medicinal products, as well as the PMG expansion. | <ul style="list-style-type: none"> Continue implementation of provisions of the new version of the Law of Ukraine <i>"On Medicinal Products"</i> Enforce provisions of the Law of Ukraine <i>"On Medicinal Products"</i>. Ensure regular update and actualization of the Positive List. |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |

| | | | |
|---|---|---|---|
| Risks related to the goal achievement | <ul style="list-style-type: none"> War on the territory of Ukraine continues Lack of resources in the State Budget to cover the needs of the population Lack of political will and relevant initiatives to take decisions Appearance of unpredictable factors that will significantly affect results of the simulation Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> War on the territory of Ukraine continues Lack of resources in the State Budget to cover the needs of the population Lack of political will and relevant initiatives to take decisions Appearance of unpredictable factors that will significantly affect results of the simulation Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> War on the territory of Ukraine continues Lack of resources in the State Budget to cover the needs of the population Lack of political will and relevant initiatives to take decisions Appearance of unpredictable factors that will significantly affect results of the simulation Lack of consensus among stakeholders (interested parties) |
| Quality goal achievement indicator | <ul style="list-style-type: none"> The new version of the Law of Ukraine <i>On Medicinal Products</i> has been adopted; The National List of Medicines has been updated Benchmarking in line with WHO recommendations has been completed | <ul style="list-style-type: none"> The single Positive List of Medicinal Products procured with public funds has been approved and updated on the regular basis; An independent Agency for assessment of medical technologies has been established as a single expert body | <ul style="list-style-type: none"> Provisions of the Law of Ukraine <i>"On Medicinal Products"</i> have been implemented. Provisions of the draft Law of Ukraine <i>"On Medicinal Products"</i> have been implemented The Positive List of Medicines has been updated. |
| Total funding requirement for the goal achievement | No additional costs needed | State Budget and/or local budgets | No additional costs needed |
| 2. Establishing an independent agency for health technology assessment as the single expert body that ensures validity and evidence base for the selection and evaluation of the effectiveness of medicines and medical devices, and extending the HGP | | <ul style="list-style-type: none"> Develop and approve a road map to set up the independent Agency for Medical Technology Assessment (MTA) Develop provisions on the Agency for Medical Technology Assessment, Establish the independent MTA Agency. Ensure integration of operational, technical, financial, legal, institutional, and communication processes into the structure of the health care system. Ensure transfer of the functionalities from the MTA department (SEC) to the agency established Develop the Agency's staff list and budget | <ul style="list-style-type: none"> Ensure launch and sustainable operation of the Medical Technology Assessment Agency |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |

| | | | |
|--|---|--|---|
| Risks related to the goal achievement | <ul style="list-style-type: none"> War on the territory of Ukraine continues Lack of resources in the State Budget to cover the needs of the population Lack of political will and relevant initiatives to take decisions Appearance of unpredictable factors that will significantly affect results of the simulation Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> War on the territory of Ukraine continues Lack of resources in the State Budget to cover the needs of the population Lack of political will and relevant initiatives to take decisions Appearance of unpredictable factors that will significantly affect results of the simulation Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> War on the territory of Ukraine continues Lack of resources in the State Budget to cover the needs of the population Lack of political will and relevant initiatives to take decisions Appearance of unpredictable factors that will significantly affect results of the simulation Lack of consensus among stakeholders (interested parties) |
| Quality goal achievement indicator | - | <ul style="list-style-type: none"> The road map to set up the independent Agency for Medical Technology Assessment (MTA) has been approved Provisions on the Agency for Medical Technology Assessment have been developed. The independent MTA Agency has been established. | <ul style="list-style-type: none"> Sustainable operation of the MTA Agency has been supported |
| Total funding requirement for the goal achievement | - | State Budget and/or local budgets | State Budget and/or local budgets |
| 3. Facilitating the development of the pharmaceutical industry with a focus on fostering investment in R&D, localisation and other methods for exploring new technologies of the production of medicines and medical devices, promoting organization of clinical trial in Ukraine, strengthening control over intellectual property rights, | <ul style="list-style-type: none"> Adopt the draft Law "On Amendments to the Tax Code of Ukraine to Regulate Compassion-Based Provision of Medicines to Patients" (No. 5737 of 6.7.2021) regarding reduction of the financial burden on the provider of compassion-based medicines distributed free of charge (VAT exemption of importation of medicines for such purposes) and the financial burden on the patient who receives free treatment. Adopt the draft Law "On Amendments to the Criminal Code of Ukraine and the Code of | <ul style="list-style-type: none"> Adapt and approve national bioequivalence guidelines based on European standards and recommendations. Include production of medicinal products into priority sectors of the economy (amendments to CMU Resolution No. 843-r). Develop and adopt a draft law on introduction of the full functioning Bolar provision in the field of intellectual property (provide for the possibility of registering generic drugs before expiration of patent protection, and the possibility of exporting to third countries after expiration of the main patent). Adopt the Law on bringing requirements for protection | <ul style="list-style-type: none"> Adopt the draft Law of Ukraine "On Clinical Trials" Assess effectiveness of the tools introduced to stimulate R&D investments, localize new technologies for production of medicinal products, conduct clinical trials in Ukraine. |

| | | | |
|---|---|--|--|
| <p>full implementation of the Bolar exemption in the national legislation and other state-of-art tools aimed at reinforcing the sector</p> | <p><i>Administrative Offenses of Ukraine Regarding Improved Liability for Violation of the Established Procedures of Preclinical Studies, Clinical Trials, and State Registration/Registration of Medicinal Products</i>" (No. 5815 of 21.7.2021).</p> <ul style="list-style-type: none"> • Amend the procedures for confirming compliance of production conditions of medicinal products with requirements of the good manufacturing practice (GMP), in view of the conditions and limitations of their implementation in the light of the martial law. | <p>of intellectual property rights in the pharmaceutical sector in compliance with international and European standards, international commitments of Ukraine, and in view of the flexible provisions of the TRIPS Agreement and Article 73 of the TRIPS Agreement, as well as Article 219 "Patents and Public Health" of the EU-Ukraine Association Agreement.</p> <ul style="list-style-type: none"> • Update the current legislation on clinical trials (CL) - amendments to the current Law of Ukraine "On Medicinal Products" No. 123/96-VR (Article 8): to shorten the terms of CT approval and establish the general term - up to 25 calendar days for international CTs that are approved in countries with a strict regulatory system (EU, USA, etc.), up to 40 calendar days for all CTs; to withdraw part 8, which was erroneously preserved when amending this article on insurance; to regulate the requirements for inclusion into CTs individuals under the age of 18; to regulate in the Law opportunities to introduce the latest technologies for holding CTs in Ukraine (application of telemedicine, conducting procedures and providing services within CTs at the trial subjects' place of residence/stay, remote monitoring and data verification, etc.). • Adopt legislation on stimulating development of the field of clinical trials - amendments to the Tax Code of Ukraine: to exempt from VAT imports of medicinal products, medical devices, and related materials for the purposes of holding CTs; to exempt from VAT services within CTs (researchers, HCFs, service organizations) | |
|---|---|--|--|

| | | | |
|---------------------------------------|--|--|--|
| | | <p>for the period of 10 years; to regulate taxation of investigators (without introduction of additional benefits); the cost of regulatory support, etc.</p> <ul style="list-style-type: none"> ● Regulate in the law and introduce tax benefits for applicants of international clinical trials in Ukraine - benefit proportionality in accordance with the level of R&D investments into Ukraine. ● Introduce a tax calculator for R&D investments, in particular for international clinical trials. ● Develop the draft Law of Ukraine <i>“On Medicinal Products”</i>. ● Develop and implement a plan for development of the national infrastructure for conducting clinical trials, including through public-private partnerships. ● Develop a plan for building a network of laboratories of various forms of ownership for quality control of medicinal products and conducting bioequivalence tests meeting EU standards. ● Update requirements for functioning of control laboratories and determine sources of funding. ● Ensure continuous access for clinical trial experts to professional development in Ukraine | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> ● War on the territory of Ukraine continues ● Lack of resources in the State Budget to cover the needs of the population ● Lack of political will and relevant initiatives to take decisions ● Appearance of unpredictable factors that will significantly affect results of the simulation | <ul style="list-style-type: none"> ● War on the territory of Ukraine continues ● Lack of resources in the State Budget to cover the needs of the population ● Lack of political will and relevant initiatives to take decisions ● Appearance of unpredictable factors that will significantly affect results of the simulation | <ul style="list-style-type: none"> ● War on the territory of Ukraine continues ● Lack of resources in the State Budget to cover the needs of the population ● Lack of political will and relevant initiatives to take decisions ● Appearance of unpredictable factors that will significantly affect results of the simulation |

| | | | |
|--|--|---|---|
| | <p>affect results of the simulation</p> <ul style="list-style-type: none"> • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • Lack of consensus among stakeholders (interested parties) |
| Quality goal achievement indicator | The legislation is amended | The legislation is amended | The law adopted The effectiveness is assessed |
| Total funding requirement for the goal achievement | no additional costs needed | no additional costs needed | no additional costs needed |
| 4. Ensuring harmonization of regulations in the field of circulation of medicinal products with EU legislation, in view of requirements of the EU-Ukraine Association Agreement and the terms of membership in international organizations, including digitization of the relevant procedures | <ul style="list-style-type: none"> • Amend the procedures for confirming compliance of production conditions of medicinal products with requirements of the good manufacturing practice (GMP), in view of the conditions and limitations of their implementation in the light of the martial law. | <ul style="list-style-type: none"> • Transfer medical devices from the 3rd order priority to the 2nd order priority list and include the pharmaceutical sectors in the scope of the ACAA Agreement with the EU. • To improve the procedures for confirming compliance of the conditions of production of medicinal products with the good manufacturing practice (GMP) requirements, which meets EU standards. • Include Ukraine into centralized and decentralized registration procedures of EU medicinal products. • For the transition period - until the procedures for confirming compliance of production conditions of medicinal products with good manufacturing practice (GMP) requirements and mutual recognition of inspection certificates are fully aligned with European standards - develop and propose to the European counterparts a two-tier approach to GMP certification (EU GMP & PICS GMP). • Implement into the national legislation provisions of the Council of Europe Convention on the Counterfeiting of Medical Products and Similar Crimes involving Threats to Public Health (Medicrime Convention), including in the area of illegal Internet trade in medicines and other medical products. | |

| | | | |
|---------------------------|-------------------------|---|--|
| | | <ul style="list-style-type: none"> ● Develop and approve amendments to legislation on criminal and administrative liability for counterfeiting of medical products, which will ensure effective enforcement of the relevant provisions. ● Introduce the format of the electronic common technical document (hereinafter — eCTD) and the electronic portal, as well as the procedures for registration (re-registration) of medicinal products, making changes to registration materials for medicinal products, approving holding of clinical trials or significant amendments to clinical trial protocols (eSubmission). ● Develop a state register of medical products. ● Regulate marketing activities in the pharmaceutical market, harmonize the national legislation with Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 regarding activities of medical representatives of pharmaceutical companies. ● Establish due liability for bribery of a health professional by a representative of a pharmaceutical company, as well as for extortion of illegal remuneration for wholesale and retail sale of medicinal products. ● Obtain the status of an ICH member state for the regulatory authority of Ukraine. ● Consolidate mutual recognition of GMP certificates and inspection results with a separate document at the level of the Ukrainian Government and the European Union. | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | |

| | | | |
|--|---|---|---|
| Risks related to the goal achievement | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • |
| Quality goal achievement indicator | The law adopted The legislation is amended | The legislation is amended | |
| Total funding requirement for the goal achievement | no additional costs needed | no additional costs needed | |
| 5. Ensuring public access to effective medicines by establishing a strict regulatory system in Ukraine in line with those existing at the international level | <ul style="list-style-type: none"> • Develop a plan to expand the "Affordable Medicines" reimbursement program regarding selection of respective nosologies and INNs, while in the future — of medical devices as well. | <ul style="list-style-type: none"> • Establish a new central executive authority with a special status to implement the national policy in the field of development, market admission, circulation, quality control, safety, and efficacy of medicinal products • Develop and implement approaches to advertising of medicinal products in line with the European practice. • Ensure functioning of the electronic prescription for prescription drugs. • Develop a road map for development and implementation of a drug verification system in compliance with EU and GS1 standards as a component of the EU verification system. • Update the medicinal products quality control system in accordance with the business activity licensing model with a risk-based approach. • Introduce a national verification system for medicinal products being | Assess the current status of proving therapeutic efficacy of generic drugs, conduct additional trials in accordance with modern international standards, and revise the registration status of generic drugs that will not confirm the specified efficacy level |

| | | | |
|---|---|---|---|
| | | part of the EU verification system. | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation • Lack of consensus among stakeholders (interested parties) |
| Quality goal achievement indicator | The Plan adopted; The law adopted | The legislation is amended | The legislation is amended |
| Total funding requirement for the goal achievement | State Budget and/or local budgets | | |
| 6. Establishment of a national state-owned enterprise for distribution of medicinal products and a state- and municipally-owned pharmacy chain | <ul style="list-style-type: none"> • Create (reorganize) a state-owned enterprise for distribution of medicinal products and a state- and municipally-owned pharmacy chain. | <ul style="list-style-type: none"> • Ensure full-fledged functioning of the state-owned enterprise for distribution of medicinal products and a state- and municipally-owned pharmacy chain | |
| Deadline within the stage | June 2022 – end of 2022 | January 2023 – December 2025 | January 2026 – December 2032 |
| Risks related to the goal achievement | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation | <ul style="list-style-type: none"> • War on the territory of Ukraine continues • Lack of resources in the State Budget to cover the needs of the population • Lack of political will and relevant initiatives to take decisions • Appearance of unpredictable factors that will significantly affect results of the simulation |) |

| | | | |
|--|---|--|---|
| | <p>affect results of the simulation</p> <ul style="list-style-type: none"> • Lack of consensus among stakeholders (interested parties) | <ul style="list-style-type: none"> • Lack of consensus among stakeholders (interested parties) | |
| Quality goal achievement indicator | A state-owned enterprise for distribution of medicinal products and a state- and municipally-owned pharmacy chain have been created (reorganized). | Full-fledged functioning of the state-owned enterprise for distribution of medicinal products and a state- and municipally-owned pharmacy chain has been ensured | - |
| Total funding requirement for the goal achievement | | UAH 350 million | - |