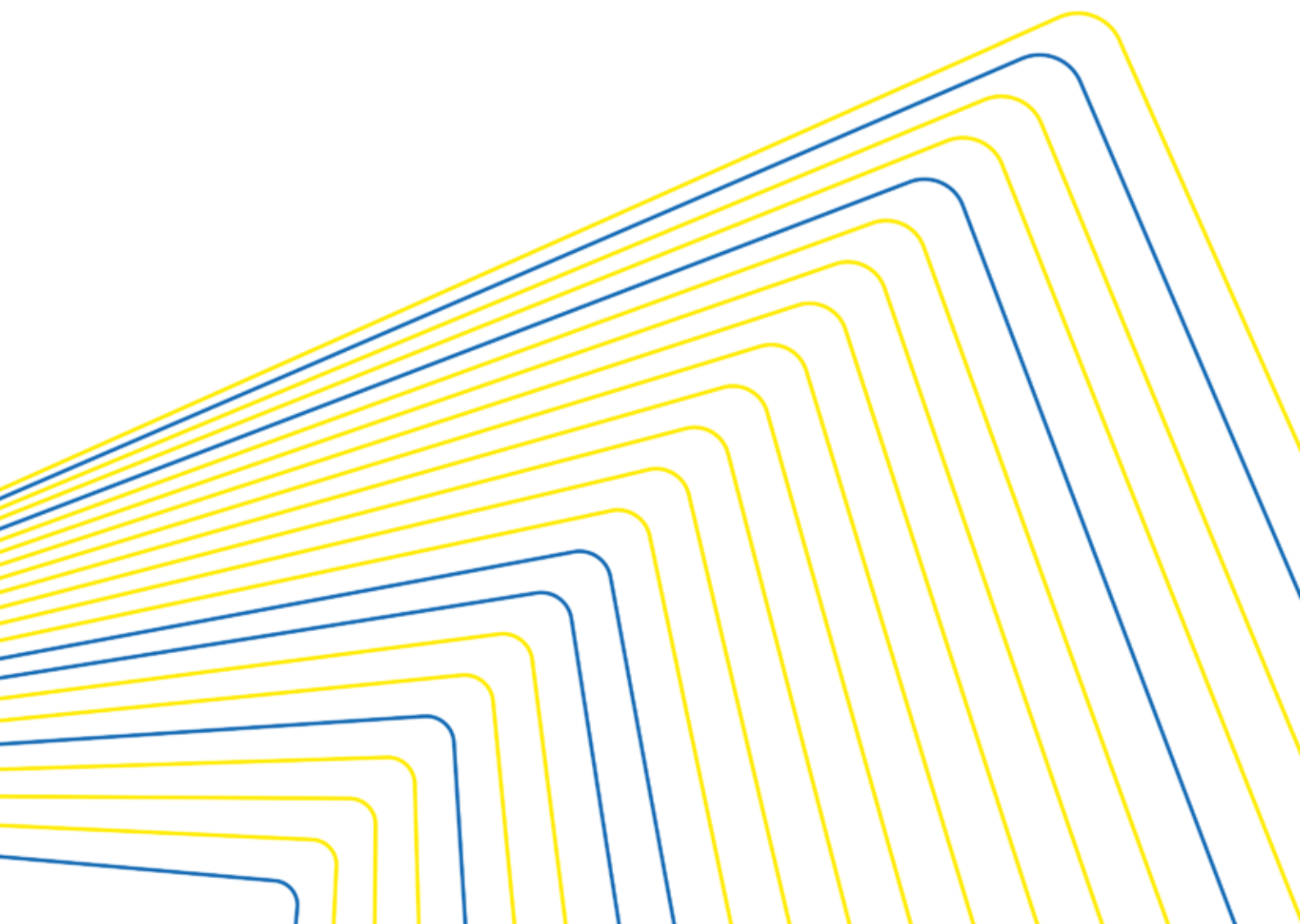




European Region

WHO Country Office in Ukraine

2020–2021 Report



Abstract

This report provides an overview of the operations and activities of the World Health Organization (WHO) Country Office in Ukraine over the 2020–2021 biennium. Despite significant challenges during this period, including COVID-19 and the conflict in eastern Ukraine, the Country Office's work continued apace according to its core mandate. This work was framed by WHO's guiding principles and objectives for global health, set out in the Thirteenth General Programme of Work, as well as by the European Programme of Work 2020–2025, and the Biennial Collaborative Agreement signed with the Government of Ukraine. The report presents the achievements made in Ukraine in working towards WHO's three strategic priorities: achieving universal health coverage, addressing health emergencies and promoting healthier populations.

Keywords

UKRAINE; EUROPE; UNIVERSAL HEALTH COVERAGE; HEALTH REFORM; EMERGENCIES; HEALTHIER POPULATIONS; COVID-19

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Foreword

At the time of publishing this report, the war in Ukraine has changed the lives of all Ukrainians. It triggered a humanitarian crisis in early 2022, the scale of which has not been seen in the region in recent history. In this context, the World Health Organization (WHO) Country Office in Ukraine has shifted its work to focus on the immediate crisis response. The response has, since the very first hours of the attacks, focussed on saving lives and minimizing disruptions to the delivery of critical health-care services. This has been made possible by WHO's strong partnerships in the country, established over many years of operations. We are committed to staying and delivering for the people of Ukraine.



The report you see before you was written before the Russian Federation's invasion of Ukraine on the 24th of February 2022, covering the work accomplished by the Country Office throughout 2020–2021. Although the past two years seem far removed from the challenges Ukraine currently faces, we have chosen to release this report. We believe it is crucial to highlight the incredible work done in the health sector in Ukraine over this period: in emergency preparedness, in delivering health services to conflict-affected areas, in the ongoing health reform process and in the response to the COVID-19 pandemic. Many health services were improved during this time, including primary health care, services for chronic conditions and immunization services. What was achieved over the biennium is still saving lives today, in the current context. This report will serve as a record of progress, interrupted by the war, which is vital to be continued when peace is re-established across the country and recovery can take place.

During the period covered by this report, the global community was challenged to come together like never before. As the COVID-19 pandemic ravaged the world, taking lives and disrupting societies and economies, health systems were placed under incredible strain. Ukraine was no exception to this challenge, with thousands of new COVID-19 cases every day. However, the pandemic also triggered an unprecedented, international health emergency response, felt in every corner of the globe. 2020 was a pivotal year for the planet, forever changing us. It forced us to better understand the need to achieve universal health coverage, to protect populations from health emergencies and to help people to enjoy better, healthier lives. COVID-19 demonstrated, more than ever, that no one is safe until everyone is safe.

This report demonstrates the Organization's commitment to those global, strategic priorities, put into action by achieving a range of improved health outcomes for the people of Ukraine. For many Ukrainians, the period of the COVID-19 pandemic was perhaps the first time they became aware of WHO and its work in the country. In Ukraine, the pandemic touched all areas of life, with no one spared from the tremendous sense of loss: from dear ones to social interaction with family and friends, and the economic means to thrive. Our teams worked closely with the Ministry of Health (MoH), other health authorities and partners at the national and local level, to inform and educate

the public about COVID-19. Many Ukrainians saw WHO directly supporting the delivery of much needed medical supplies to overstretched health facilities.

While WHO's operations in Ukraine expanded considerably to address COVID-19, we also continued to respond to our core mandate. Our teams worked to ensure the continuity of essential health services for mental health, communicable diseases and primary health care, among other priority areas, while continuing to support life-saving health services in eastern Ukraine. WHO supported reform of the health system in Ukraine by providing expert advice and policy dialogues to strengthen national institutions in health governance, finance and public health. This report highlights key areas of progress, made possible with the support, generosity and investment of our many partners. This work is guided by the Ukraine Biennial Collaborative Agreement and the European Programme of Work, both framed within WHO's Thirteenth General Programme of Work and the Sustainable Development Goals (SDGs).

As WHO is committed to strengthening health leadership in Ukraine, in 2020–2021 the Country Office assisted all levels of government, international development partners and local nongovernmental organizations, to participate in national health reform. The convening power of our organization is significant, and the Country Office has used this advantage to conduct strategic policy dialogues between relevant stakeholders across a wide range of topics and forums. This has especially occurred through the comprehensive Health Care System Reform initiative, focussed on advancing the ongoing health reform process in Ukraine, in train since 2015. During the biennium, coordination of development aid was achieved between the three tiers of the donor community, government, and implementation, with WHO and the MoH co-chairing the health coordination group. WHO continued to coordinate partners around SDG 3, convening interagency meetings on good health and well-being (in line with the Global Action Plan). Open dialogue has led to better alignment and synergies between development aid and the health reform agenda.

In the pages that follow, I invite you to explore the essential role that the Country Office played in Ukraine in 2020–2021 and gain insight into the transformation that our Office experienced while working, harder than ever, to serve the people of Ukraine and the broader United Nations family. From the onset of the pandemic, WHO led a United Nations response in Ukraine that provided support to the government and its partners to save lives, slow the spread of the virus and maintain critical health services. At the same time, WHO also supported the ongoing health system reform process — addressing the needs of those who were more vulnerable or at risk of illness or disease, and ensuring that human rights and gender equality were central in health delivery.

Finally, I would like to take the opportunity to recognize, and thank, the Ukrainian health-care and front-line workers, who are currently bearing the direct impact of the war. That is, after enduring years of conflict in the country, as well as the COVID-19 pandemic. In my travels across the country, meeting with numerous health professionals, I have witnessed the remarkable resilience and dedication of the health workforce in Ukraine. Their perseverance in supporting their fellow human beings, and bringing hope in extremely difficult times, is truly remarkable. Although the challenges have grown since the end of 2021 for Ukraine, we know that its people and its health workforce will meet these new conditions with fortitude and spirit.

Thank you.
Dr Jarno Habicht

WHO Representative and Head of the Country Office in Ukraine

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Bill & Melinda Gates Foundation	Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM)
Bloomberg Family Foundation	Ministry of Foreign Affairs of Denmark
Centers for Disease Control and Prevention (CDC), United States of America	Ministry of Foreign Affairs of Italy
Defense Threat Reduction Agency (DTRA), United States of America	Ministry of Foreign Affairs of the Netherlands
Department of Foreign Affairs, Trade and Development (DFATD), Canada	Multi-Partner Trust Fund (MPTF)
Department for International Development (DFID), United Kingdom	Norwegian Agency for Development Cooperation (NORAD)
Directorate-General for International Partnerships (DG INTPA), European Commission	Swiss Development Cooperation Agency (SDC/DDC)
Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO), European Commission	Ukraine Humanitarian Fund (UHF)
Directorate-General for Neighbourhood and Enlargement Negotiations (NEAR), European Commission	United Nations Central Emergency Response Fund (CERF)
	United States Agency for International Development (USAID)
	Universal Health Coverage Partnership (UHC-P)

Abbreviations

AFP	acute flaccid paralysis
AMP	Affordable Medicines Programme
AMR	antimicrobial resistance
ART	antiretroviral therapy
AT	assistive technologies
AWaRe	Access, Watch, Reserve
BCA	Biennial Collaborative Agreement
CDC	Centers for Disease Control and Prevention
CPA	Central Procurement Agency
CPRP	Country Preparedness and Response Plan
DPT-3	diphtheria-tetanus-pertussis vaccine
ECM	enhanced care management
EU	European Union
EMS	emergency medical services
EUCAST	European Committee on Antimicrobial Susceptibility Testing
GBT	Global Benchmarking Tool
GCA	government controlled area
GPEI	Global Polio Eradication Initiative
GPW 13	WHO's Thirteenth General Programme of Work 2019–2023
HRP	Humanitarian Response Plan
IG	Intervention Guide (mhGAP)
IHR	International Health Regulations
IMC	International Medical Corps
IPC	infection prevention and control
JEE	Joint External Evaluation
mhGAP	Mental Health Gap Action Programme
MHPSS TWG	Mental Health and Psychosocial Support Technical Working Group
MoH	Ministry of Health of Ukraine
NCD	noncommunicable disease
NDVP	National Deployment and Vaccination Plan
NGCA	non-government controlled area
NGO	nongovernmental organization
NHS2030	National Health Strategy 2030
NHSU	National Health Service of Ukraine
NRA	National Regulatory Authority
OCDC	Oblast Centre for Disease Control and Prevention
OPV	oral polio vaccine
OST/MAT	opioid-substitution therapy/medication-assisted treatment
PCR	polymerase chain reaction
PHC	primary health care
PHCPI	Primary Health Care Performance Initiative
PHEOC	Public Health Emergency Operation Centre
PLHIV	people living with HIV
PMG	Programme of Medical Guarantees
PPE	personal protective equipment
PrEP	pre-exposure prophylaxis
SARI	severe acute respiratory infections
SDGs	Sustainable Development Goals
SOPs	standard operating procedures
SSS	State Statistics Service of Ukraine
STI	sexually transmissible infection
TB	tuberculosis
UHC	universal health coverage
UHC2030	International Health Partnership for Universal Health Coverage 2030
UNICEF	United Nations Children's Fund
UPHC	Ukrainian Public Health Centre
VPI	Vaccine-Preventable Diseases and Immunization programme (WHO)
WHO FCTC	WHO Framework Convention on Tobacco Control
WHO-PEN	WHO Package of Essential Noncommunicable Disease Interventions

Introduction

COVID-19 update

COVID-19 had a significant impact on Ukraine during 2020–2021. Managing the pandemic became a key health priority for the country. By December 2021, confirmed cases totalled over 3.5 million, including almost 90 000 deaths and over three million fully recovered patients.

At the beginning of the pandemic, there was a significant need for masks, protective suits and ventilators, and the capacity of laboratory testing was limited. The first

Infection prevention and control



More than 1.8 million items of personal protective equipment, including more than 500 000 isolation gowns, 200 000 respirators, 700 000 pairs of gloves and 100 000 goggles were delivered by WHO.



More than 7.7 million medical masks were distributed.



More than 7000 health-care workers were trained in infection prevention and control by WHO through on-site and online trainings.



More than 3300 hand-hygiene stations were established in COVID-19 hospitals.



More than 190 technical support visits and on-site trainings were conducted in COVID-19 designated hospitals, including trainings on personal protective equipment use, hand hygiene and fit testing.



63 webinars and two online schools were conducted on infection prevention and control and related topics, with more than 5000 health-care workers participating.



More than 300 hospitals benefited from WHO support.

Clinical management



471 COVID-19 hospitals' oxygen supplies were audited.



255 hospitals were supported with equipment modernization.



5800 specialists benefited from clinical management training, webinars and on-site visits.



Nine Ukrainian-developed personal protective equipment products passed WHO quality standards.

Laboratories



A 100-fold increase in COVID-19 polymerase chain reaction testing capacity was achieved in public laboratories.



28 laboratories were supported with essential laboratory supplies.



133 laboratories joined the Proficiency Testing Programme for the Detection of SARS-CoV-2 by polymerase chain reaction.



More than 500 laboratory specialists attended online workshops on the WHO Laboratory Biosafety Manual (1).

Surveillance

424

epidemiologists were trained in contact tracing.

500+

More than 500 daily situation reports were disseminated.

230

units were supported with information technology equipment, such as computers and mobile phones.

24

oblasts and Kyiv City were monitored for adherence to public health measures.

Mental health

510

health-care workers received COVID-19 focused mental health training.

29

penitentiary facilities were reached with mental health support.

8

primary health care centres were supported with mental health trainings.

18

trainings were conducted for specialist mental health care workers.

COVID-19 case in Ukraine was registered on 2 March 2020, after which national quarantine measures quickly came into effect. Later that month, the Government of Ukraine in coordination with WHO and other partners, published Ukraine's Country Preparedness and Response Plan.

Efforts by the government, World Health Organization (WHO) and a wide range of health partners substantially strengthened the response to COVID-19 in Ukraine over the biennium. Key achievements include a 100-times capacity increase in polymerase chain reaction testing within public laboratories, over 27 million doses of COVID-19 vaccine provided to the population, and four strategic updates to the Country Preparedness and Response Plan. Significant achievements in WHO's response to COVID-19 in Ukraine are outlined below. More details on this response can also be found in section 2.2 of this report.

Coordination



A COVID-19 Intra-Action Review was conducted in January 2021, identifying best practices, gaps and lessons learned so far. The results were incorporated into the revised Country Preparedness and Response Plan.



Four Country Preparedness and Response Plan updates were implemented and 15 Health Cluster COVID-19 meetings were held involving up to 70 health partners.



Eight oblasts were involved in WHO's social cohesion and peace-building project, involving localized conflict analysis, community-based dialogue, mediation and trust building.



24 United Nations medical meetings were held with United Nations partners to build a complex and multi-partnered health response.



Regular briefings on COVID-19 in Ukraine were provided to United Nations agencies, international partners and stakeholders by WHO's leadership.

Risk communication



Six million people were reached through digital information packages (15 video animation and 10 digital packages) addressing safe individual behaviours, understanding of the virus and COVID-19 risk perception.



A 2020 study was conducted to understand the behavioural trends towards COVID-19 and trust dynamics among Ukrainians (2). By 2021, 14 waves of this study had been completed.



More than 20 sets of video instructions were designed and delivered with biomedical equipment to explain proper handling to medical workers.

COVID-19 vaccinations



The Government of Ukraine was supported in developing a National Deployment and Vaccination Plan against COVID-19 and completing all required documents for COVAX registration and support.



Over 9 million people were fully vaccinated in 2021 via support from WHO.



Over 19 000 health-care workers were trained to deliver COVID-19 vaccines by 350 regional trainers working in 28 regional training hubs in 2021.

Maintaining essential health service



24 oblasts, Kyiv and four other cities were monitored to assess the impact of COVID-19 on HIV treatment and testing service delivery.



250 primary health care facilities were assessed online and 33 assessed physically as part of a study on adapting the 2021 primary health care service package to respond to COVID-19.



A review on routine immunization practice during the COVID-19 pandemic was conducted.



Regular policy dialogues on health financing and maintaining health services during each wave of COVID-19, were held with the National Health Service of Ukraine.

WHO in Ukraine

WHO established the Country Office in Ukraine in 1994 to support the development of a sustainable health sector. The WHO team in Ukraine consists of professionals who provide technical expertise and build national capacity to promote health and to protect the vulnerable. The Country Office specifically supports the Ministry of Health of Ukraine (MoH) and other national authorities with four underpinning lines of cooperation: policy dialogue, strategic support, technical assistance and service delivery.

WHO's programme of work in Ukraine aligns with the strategic priorities of the United Nations system, namely the 2030 Agenda and its Sustainable Development Goals (SDGs). WHO also advances three strategic objectives in Ukraine, each of which places national capacity-building at the centre of the Organization's work: achieving universal health coverage (UHC),

Fig. 1. Sustainable Development Goals (SDGs) Mapping



The global work of WHO is guided by the Thirteenth General Programme of Work 2019–2023 (GPW 13).



In the European Region, the corresponding guiding framework is the European Programme of Work 2020–2025.



At the local level, collaboration between WHO and the MoH is guided by the Biennial Collaborative Agreement 2020–2021 (BCA).

addressing health emergencies and promoting healthier populations. These three programmatic areas form the basis of this report.

Key areas

The Country Office in Ukraine supports WHO's global priorities, such as the Special Initiative on Mental Health. This initiative was identified by Dr Tedros Adhanom Ghebreyesus, WHO Director-General, as addressing a key area of concern. The goal of the initiative is for 100 million more people globally to have access to quality and affordable mental health care by 2023. Ukraine is one of 12 priority countries identified for targeted action.

The Universal Health Coverage Partnership (UHC-P) is another of WHO's global programmes for action. Led by the Country Office at the national level in Ukraine, UHC-P is one of WHO's largest platforms for international cooperation. It involves international health experts working with governments to promote UHC and primary health care (PHC). UHC-P fosters policy dialogue on improving strategic planning, health systems governance, health financing and effective development cooperation. The Country Office's work in 2020–2021 in supporting Ukraine to achieve UHC is highlighted in this report.

The Primary Health Care Performance Initiative (PHCPI) supports the achievement of UHC in countries by focussing on transforming the global state of PHC. This starts with a focus on better measurement, improvement strategies and elevating



PHC as a global priority. The Country Office follows PHCPI's conceptual framework in Ukraine by supporting new technologies and the utilization of data. Initiatives have included reviewing newly available eHealth data for the MoH and creating online dashboards to provide timely and relevant evidence for policy-makers.

The WHO Regional Office for Europe has also identified four flagship initiatives, each of which have an active component in Ukraine:

- The Mental Health Coalition;
- Empowerment through Digital Health;
- The European Immunization Agenda 2030;
- Healthier Behaviours: incorporating behavioural and cultural insights into health interventions.

Triple billion targets

At the global level, the three strategic objectives of achieving UHC, addressing health emergencies and promoting healthier populations, are coupled with targets to ensure that one billion more people enjoy these benefits. Together these are known as the “triple billion” targets (Fig. 2).

The triple billion targets are a joint effort by Member States, WHO and other partners.

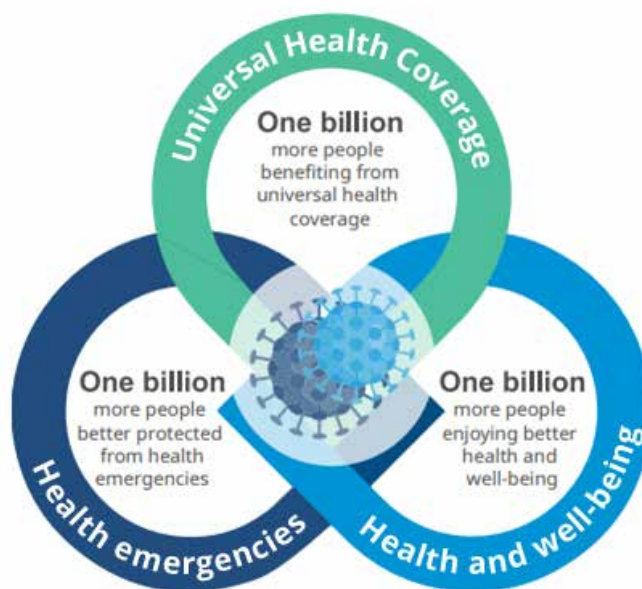
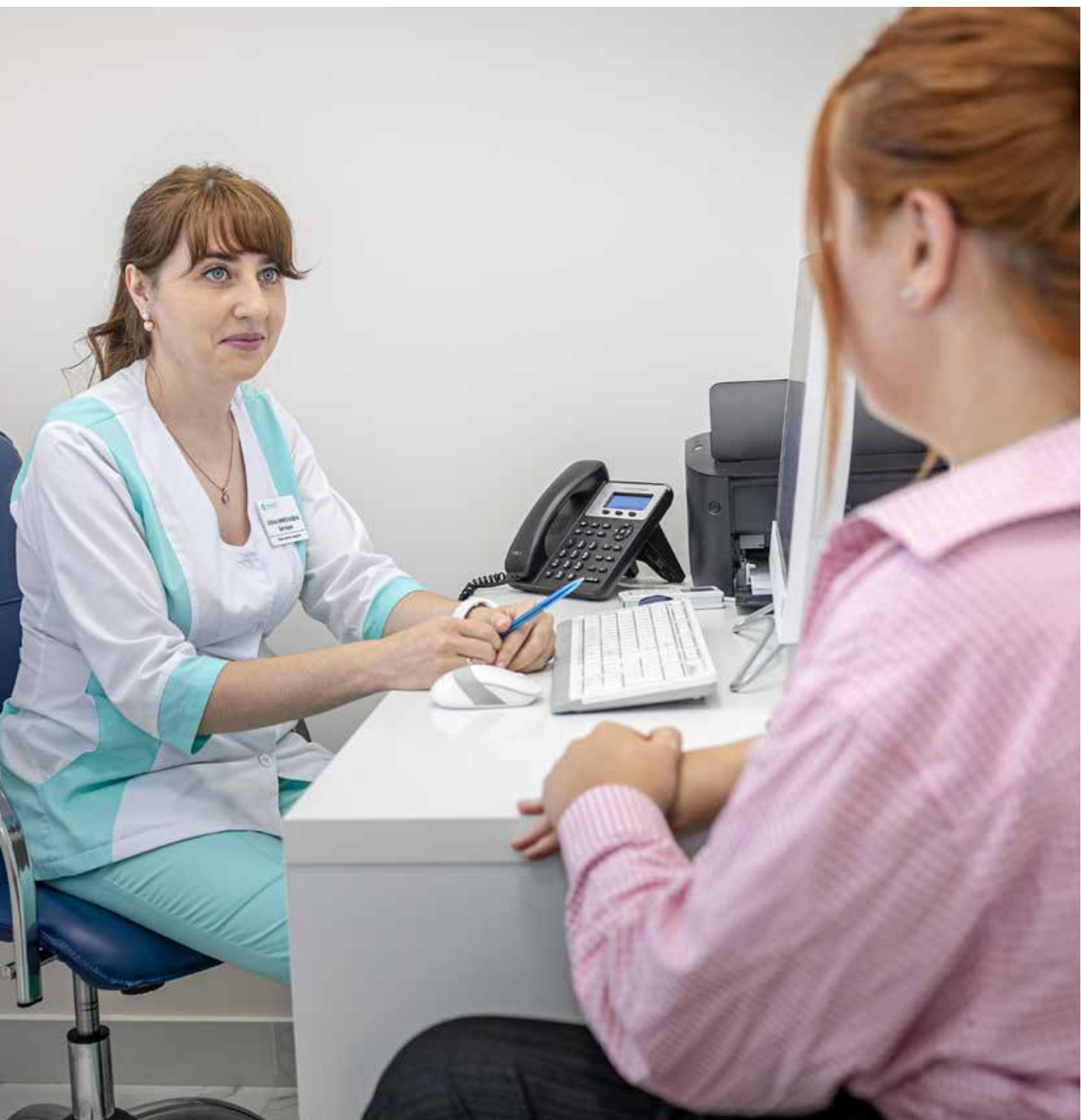


Fig. 2. The triple billion targets

HIV Mental Health Antimicrobial Resistance HEALTH COORDINATION
 RISK COMMUNICATION Gender and Health Primary Health Care
 EMERGENCY PREPAREDNESS Emergency Response OBESITY
 HEALTH GOVERNANCE REHABILITATION MEDICINES
 TOBACCO CONTROL Health Workforce Immunizations
Diabetes Tuberculosis COVID RESPONSE
 HEALTH COORDINATION Surveillance Nutrition
Primary Health Care HEALTH FINANCING **HIV**
 Mental Health **MEDICINES** Antimicrobial Resistance
 OBESITY Emergency Response PUBLIC HEALTH
 CANCER TREATMENT Gender and Health RISK COMMUNICATION



1. Strengthening health systems for universal health coverage





Universal health coverage (UHC) is an important expression of the fundamental human right to the highest available standards of physical and mental health. WHO's GPW 13 outlines UHC as one of its core strategic priorities. With this objective in mind, WHO aims to support Member States to build stronger health systems, while ensuring all people receive quality health services without suffering financial hardship.

In 2020–2021, COVID-19 demonstrated the paramount importance of having well-equipped, modern health-care systems to respond effectively to health crises and pandemics. A strong health-care system provides the relevant services that protect people from future risks.

In line with this vision, the Country Office supported the MoH throughout the 2020–2021 biennium, alongside other key national authorities, to continue health sector reform in Ukraine. Important developments included: work on the National Health Strategy 2030 (NHS2030); milestones achieved in ensuring financial risk protection; improving access to essential health services; and upgrading access to safe, effective, quality and affordable medicines and vaccines. This reform agenda in Ukraine focussed on strengthening the health-care system through a people-centred approach.

1.1 Health governance

Achieving UHC is a choice made by Member States within WHO. It is a goal that requires the political will to place health at the centre of domestic priorities, to develop sound policies and to invest in capacity-building within health systems.

In 2014, the Government of Ukraine initiated an ambitious transformation of its health system with the development of the National Health Reform Strategy for Ukraine 2015–2020 (3). The health-care reforms provided a new focus on people's needs, by strengthening PHC, financial risk protection, and access to affordable, safe and effective medicines and vaccines. The achievement of equal access to essential health services was at the core of the strategy. In 2021, the process of updating Ukraine's health strategy until 2030 began, reinforcing the direction of reform to develop the NHS2030.

In 2019, the Government of Ukraine expressed its commitment to achieving UHC and to improving aid effectiveness and coordination, by joining UHC2030 – an important platform for international cooperation, working to bridge global commitments with national health plans. UHC2030 brings technical support and capacity-building to the country level in three principal areas: health systems governance, health financing and effective development cooperation. In 2020–2021, the Country Office advanced the UHC2030 agenda in Ukraine, including through the following initiatives:

- **WHO supported the MoH to develop the NHS2030.** This strategy built on the success of health-care reform in Ukraine between 2015 and 2020. WHO provided technical inputs and supported the work of the Intersectoral Working Group for NHS2030 Development, including its thematic subgroups, ensuring coordination and support from international development partners.
- **WHO conducted two rapid assessments of capacity-building needs** for the MoH and the National Health Service of Ukraine (NHSU). These key health authorities are vital for developing sound policies to steer and coordinate the health system. The results of these assessments were used to improve both costing and governance, in focus at the end of 2021, and to strategically plan further NHSU capacity-building activities.
- **WHO led the development of a United Nations policy paper on UHC** (4) as part of a series of papers aimed at identifying issues that hinder or pose a risk to sustainable development in Ukraine. Recognizing the essential role that UHC plays in achieving a number of the SDGs, WHO worked to maintain health at the top of the SDG agenda, leading policy dialogues on progress towards UHC in Ukraine, including at the top political level with parliamentarians, management of the MoH and all development partners.



- **WHO strengthened national health institutions in Ukraine by convening policy dialogues with key stakeholders.** WHO supported all levels of government with the comprehensive Health Care System Reform initiative, focussed on advancing the health reform process in Ukraine. WHO also organized meetings with other partners to discuss their role in supporting health reform. Continuing to coordinate partners around the SDG agenda, WHO also convened interagency meetings on SDG 3, among other initiatives.
- **WHO developed and launched a comprehensive report, *Towards a healthier Ukraine: Progress on the health-related Sustainable Development Goals 2020* (5).** This essential document improved evidence-based decision-making capacities within health agencies in Ukraine. The report summarized up-to-date data, to better align health interventions with priorities and needs. It also contributed to raising awareness on the health-related SDGs within Ukrainian policy forums, promoting a path forward.

1.2 Health financing

Sustainable finance is the path to a sustainable health system

Protection against excessive out-of-pocket expenses has been an essential health priority in Ukraine since the health reform process began in the mid-2010s. Modernizing an obsolete service delivery system was also high on the agenda. Health financing reforms led sustainable transformations in the system to achieve these goals, incentivizing a focus on PHC and improved transparency and responsibility of individual providers.

In 2017, the Ukrainian parliament passed the *Law on state financial guarantees for the provision of medical services*, which established the NHSU and the Programme of Medical Guarantees (PMG), a package of health benefits available to all Ukrainians. This provided a strong legal foundation for the entitlement of patients to medical services, new funding arrangements for providers and a clear framework for continuous improvement in quality and efficiency.

In April 2018, the Government of Ukraine launched the NHSU, a purchasing agency, providing coverage for an explicit set of benefits. The NHSU began contracting with PHC providers, and since April 2020 with specialized care providers – based on the principle “the money follows the patient”.

Parallel to these arrangements, in 2017 the government also launched the Affordable Medicines Programme (AMP), an outpatient medicine reimbursement scheme. The programme has provided millions of people with subsidized essential drugs, mainly for noncommunicable diseases (NCDs), including chronic diseases. Initially administered by local governments, in 2019 the NHSU began administering the AMP.

WHO supported Ukraine throughout these reforms to improve access to health care, strengthen financial protections and enhance progress towards UHC, including through the following key contributions:

- **WHO organized and contributed to high-level policy dialogues on health financing reform throughout 2020–2021.** Topics such as UHC, voluntary health insurance, co-payments and costing issues were covered. These events included two-day executive consultations for participants in January 2020 and October 2021 at the WHO Barcelona Office for Health Systems Financing. Attendees from the MoH, the Ministry of Finance, the NHSU, the President and Prime Minister’s offices and members of the national Parliament, participated in these capacity-strengthening activities.
- **WHO supported the development of the first organizational strategy of the NHSU,** improving governance and transforming the NHSU into a mature purchasing agency.

- **WHO supported the NHSU in strengthening the overall design and implementation of the PMG** through package revisions, budget impact analysis and risk mitigation.
- **WHO led the development of a PHC services costing model**, by conducting a comprehensive review of costs related to service delivery, and piloting a costing exercise to contribute to the validation of the current level of the capitation rate.
- **WHO built the capacity of the NHSU and MoH on health financing issues, through WHO's Advanced Course on Health Financing for UHC**, as well as conducting training on strategic purchasing, costing of medical services and other health financing-related topics.

WHO also contributed to a long-term perspective on health financing in Ukraine through consultations on the health-care system's transparency, accountability and financial sustainability:

- **In 2020, WHO developed an analytical note to support the MoH in budget negotiations for sustained health financing (6).** This summary paper helped to identify potential budgetary space for more health funding in Ukraine.
- **In 2021, WHO issued several in-depth analytical studies on the interrelationship between financial reform and health policies in Ukraine.** WHO issued the report, *Aligning health and decentralization reform in Ukraine (7)*, addressing the effects of financial decentralization on health care. The Organization also published an additional report, *Co-payment policy: considerations for Ukraine (8)*, making recommendations on ensuring financial protections in the design of out-of-pocket medical payments. These reports contributed to technical discussions and policy discourse on health financing reform in Ukraine.
- **In 2021, WHO and the World Bank updated a joint review of the health financing reforms in Ukraine (9),** providing a comprehensive description and assessment of the development and implementation from the start of 2017 through to mid-2021.
- **WHO organized a multistakeholder dialogue on access to services for HIV, tuberculosis (TB) and opioid substitution therapy under the PMG in 2020.** This was to ensure new provider payment methods were no obstacle to the national objectives of scaling up diagnoses and increasing health coverage for people living with HIV and TB. As a result, the NHSU developed a special service package for the management and treatment of TB at the PHC level for 2021.
- **WHO contributed to policy discussions on the prospects for implementing excise taxes on harmful products in Ukraine.** In 2020, WHO published both

a situation report on tobacco controls in Ukraine (10), and a specific policy note on the tobacco excise tax (11). These contributions helped to establish a comprehensive tobacco control bill, which passed into law in 2021. WHO also issued a report with the World Bank exploring the potential for a sugar sweetened beverages excise tax in Ukraine (12).

As part of the BCA signed with the Government of Ukraine, WHO also provided technical and capacity-building support to the State Statistics Service of Ukraine (SSS), in the production of the National Health Accounts, based on the revised System of Health Accounts methodology for 2011. WHO established a deeper collaborative relationship with the SSS by working to update an earlier financial protection study for Ukraine with data to 2020. Accurate statistics help to monitor the accessibility and availability of health services, where and when people need them most, protecting them from financial burden and out-of-pocket payments.

1.3 Public health

The development of a strong public health system is an essential element for achieving UHC. The pillars of public health – health protection services, disease prevention policies and strong health promotion – have been articulated throughout the health reform process in Ukraine, such as in the country's National Health Reform Strategy 2015–2020 (3), as well as in the European Union (EU)–Ukraine Association Agreement. In 2020–2021, WHO provided technical knowledge and expertise to help Ukraine build a resilient public health system aligned with international standards, including though the following:

- **WHO provided continued support for the institutionalization of a public health legal framework.** This included support in drafting the country's public health system law. The law aims to build crucial institutional and operational capacities to achieve better public health outcomes across the country. The bill was passed to parliament for further deliberation in 2021.
- **WHO held policy dialogues and coordination and technical meetings with international partners, the MoH, the Parliamentary Health Committee and the leading national public health institution in Ukraine, the Ukrainian Public Health Centre (UPHC).** International actors who participated in these meetings included the EU Delegation in Ukraine, the World Bank, the United States Centers for Disease Control and Prevention (CDC), the United States Agency for International Development (USAID), the Swiss Agency for Development and Cooperation (SDC) and the United Nations Children's Fund (UNICEF). These meetings were to ensure the public health system focuses on all three essential areas: services for health protection, diseases prevention and health promotion.
- **WHO worked to ensure that the new public health law covers the 10 essential public health operations,** which are used to assess and plan for stronger

public health capacities. These operations include conducting surveillance of the population's health and well-being, maintaining a competent public health workforce, and ensuring health protection – including on environmental, occupational and food safety issues. Including all these operations is important to protect and promote health for all, ensuring an integrated and multisectoral approach to public health.

- **WHO experts provided essential technical support to Ukraine in developing a sustainable public health workforce.** WHO contributed to Ukraine's strategic roadmap, as well as providing toolkits and advice on practical steps forward, such as: measures to strengthen education and performance, planning for and investment in the workforce, capacity-building, and monitoring and analysis.
- **WHO worked with a number of higher education institutions to improve the curriculum and standards of the Master of Public Health in Ukraine, to bring it in line with international standards.** The WHO-ASPHER Public Health Competency Framework (13) was used to analyse the gaps in the existing master's programmes' core competencies, to align these with the professional competencies required for international best practice.

1.4 Primary health care

With the adoption of the *Law on state financial guarantees for the provision of medical services* in 2017, and the establishment of the NHSU in 2018, Ukraine made significant progress in strengthening PHC. From 2018, over 31 million Ukrainians chose their family doctor, signing an active declaration with more than 23 000 doctors. With the financial system underpinning health services clarified, PHC providers began revising managerial mechanisms, extending the use of eHealth services and reshaping service provision as per the defined package of benefits.

However, in 2020, the COVID-19 pandemic in Ukraine threatened to overwhelm the health system. The PHC system was crucial to the COVID-19 response, playing a significant role in the triage of cases and clinical responses, as well as answering patients' questions and addressing their fears. The PHC system was also vital to the health-care system overall, taking care of mild and moderate cases of COVID-19, allowing the hospital system to manage the more severe cases. This occurred while maintaining the delivery of other essential PHC services. Special effort was made to avoid disruption to the most crucial health-care services, providing support to mental health and the prevention and management of chronic diseases.

However, data from an assessment conducted by WHO in the second quarter of 2020, highlighted that COVID-19 had a negative impact on the use of PHC services. The overwhelming majority of providers (85%) reported a decline in the number of daily patient visits. As in many countries, PHC providers in Ukraine adjusted to the new circumstances by employing digital services.

Against this backdrop, WHO, continued supporting improvements in the PHC system in 2020–2021, while also responding to the COVID-19 crisis and ensuring essential health services were not interrupted:

- **WHO facilitated the development of a national PHC strategy and implementation plan.** In March 2021, virtual consultations took place between the Country Office and the Ukrainian Primary Health Care Working Group and the WHO European Centre for Primary Health Care. This was to support the working group with insights from international experiences. Further to this, under MoH and WHO leadership, the strategy and action plan was updated throughout the year, involving continuous dialogue and exchange between these groups.
- **WHO conducted a national study of PHC services to understand the challenges posed by COVID-19** and to respond to the pandemic, while still providing essential health services to those in need. This study served as a basis to understand the adaptability of the system (in light of COVID-19), gaps and additional needs. Starting with a range of facilities across six oblasts (Chernihiv, Kharkiv, Mykolaiv, Odessa, Lviv and Volyn), the study was later extended to include facilities in the government controlled areas (GCA) of Donetsk and Luhansk oblasts. WHO physically assessed 33 facilities as part of this study; 250 facilities were also assessed online. Findings included the need for increased training in specific locations, such as on vaccination, mental health and data management. Recommendations were orientated towards WHO's Strategic Preparedness and Response Plan for COVID-19. Site-level recommendations were provided for the facilities in Donetsk and Luhansk, such as on specific equipment requirements for intensive care units, ultrasound, laboratory needs and basic essentials, including water supply.
- **WHO developed a framework to assess the national performance of PHC services**, following a request to review new eHealth data. By combining different approaches to performance measurement and monitoring, WHO created indicators and online dashboards to provide periodic, relevant and timely evidence to policy-makers on the most essential PHC needs in Ukraine. This system has now been transferred to the MoH and NHSU for ongoing use.
- **WHO worked closely with the Centre of Nursing Development within the MoH to understand the crucial role nurses play in PHC**, and to advocate for their empowerment. In 2021, WHO published the report, *Development of primary health care nursing in Ukraine (14)*, identifying 10 key recommendations for policy-makers to support the capacity of nurses within PHC and make the most of their potential.
- **WHO initiated the development of innovative quality improvements for PHC, using the enhanced care management (ECM) approach.** This approach aims to improve the management of patients with multimorbidities, by using proactive outreach, patient engagement and effective application of

health data, and improving teamwork to better meet patients' needs. In 2021, WHO completed a situational analysis and tailoring of the ECM approach to the country context of Ukraine.

Primary health centres: key partners in a national response

Dr Anastasiia Khodan, a family physician practicing in the city of Lviv when COVID-19 broke out, felt overwhelmed as patients began to flood into the private centre run by her and her husband. Coordination with local authorities and governmental agencies became essential, in order to respond to all those in acute need of care. "We experienced a very high workload. We soon realized that we should reconsider the management of our health centre and began to collaborate more actively with government agencies. We even set up a call centre to manage patients without additional risk," she explained. "We learned how to build communication with them, and concluded agreements with a lot of private companies for better supply of equipment, medical services, etc. It was teamwork."

1.5 Noncommunicable diseases

NCDs were estimated to have caused 91% of all deaths in Ukraine in 2019. The probability of premature death (death between 30 and 70 years) from the four major NCDs (cardiovascular diseases, cancers, diabetes and chronic lung diseases) was 1 in 4 (25.5%), and was more than twice as high for men (36.7%) as women (16.0%). This NCD burden on Ukrainian's health was above the WHO European Region average.

These figures are linked to common risk factors such as tobacco use, harmful alcohol consumption, lack of physical activity and unhealthy diets. The data for 2019 showed an increase in smoking since 2016, driven particularly by increased smoking among women. Alcohol consumption was also very high, while levels of physical activity, and fruit and vegetable consumption, remained low.

Public policy and health surveillance in Ukraine did, however, contribute to a reduction in NCD incidence in recent years. The AMP launched in April 2017 covered medications for cardiovascular diseases, type two diabetes and asthma, at free or limited cost. The National Action Plan on Non-Communicable Diseases Prevention, Control and Health Promotion was adopted in 2018 and the STEPwise approach to surveillance (a standardized method for collecting, analysing and disseminating data on NCDs and their risk factors) was introduced in 2019.

In 2020–2021, WHO in Ukraine worked to strengthen NCD health services, to ensure access to quality care for chronic diseases and to reduce risk factors (see section

3.1). Efforts were aligned with the WHO Global Action Plan for the Prevention and Control of NCDs 2013–2020 (15), and with the overall goal of achieving SDG 3.4 (to reduce by one third premature mortality from NCDs through prevention and treatment and promote mental health and well-being). These efforts, to place NCD services at the core of UHC, included:

- **In May 2021, WHO hosted a high-level online meeting to review the implementation of the WHO Package of Essential Noncommunicable Disease Interventions (WHO-PEN) in Ukraine.** WHO-PEN is a set of standards for NCDs to strengthen national capacities and integrate and scale up NCD services in PHC. More than 80 Ukrainian and international experts participated in the meeting. Progress made during a project on NCD prevention and health promotion in Ukraine in 2015–2019 was considered, including the implications for health-care reform, training of health workers and work at the PHC level. The forum was especially relevant in the context of the response to and recovery from COVID-19.
- **In April 2021, the WHO Regional Office for Europe conducted a high-level online meeting for policy-makers, public health leaders and senior clinicians involved in the planning, design and implementation of diabetic retinopathy screening programmes** in Ukraine and Georgia. The meeting, part of a larger diabetes initiative in Europe co-funded by the Government of Denmark, reviewed screening processes already in place and considered measures to increase their effectiveness.



- **WHO provided technical guidance to the MoH to boost investment in early diagnosis of breast cancer.** During 2019–2021, WHO worked with MoH experts to consider the roles of mammography screening and early diagnosis programmes. Ukrainian policy-makers chose to invest in early diagnosis, based on identification of cancers in patients who have symptoms, followed by full diagnosis sessions at centralized screening facilities.
- **WHO developed a situation analysis and further policy dialogue on stroke management in Ukraine.** During a WHO mission in October 2021, the MoH requested WHO to collaborate in developing a comprehensive agenda for stroke management in Ukraine. Findings were reported to the government later that year. Recommendations included establishing standard operating procedures (SOPs) to ensure best practices are implemented from the onset of symptoms, as well as creating a comprehensive national registry for stroke and cardiovascular disease, to measure, report and better manage data on the quality of stroke care.

1.6 Immunization services

Immunization programmes are built on the principle that nobody is safe until everyone is safe. Unvaccinated populations experience higher risks of individual disease, as evidenced by the COVID-19 pandemic. They also face the collective risks of higher transmission rates and the emergence of new viral strains. In 2020–2021, the Regional Office's Vaccine-Preventable Diseases and Immunization (VPI) programme supported Ukraine in increasing vaccination rates.

Ukraine is an outlier country for immunization globally, with lower rates of coverage than many other nations for key vaccine-preventable diseases. From the year 2000 onwards, immunization programmes in Ukraine have improved children's health, but coverage has continued to fluctuate significantly over the decades. Vaccination rates have been affected by factors such as the conflict in the east of the country, increased vaccine hesitancy and the disruption caused by the COVID-19 pandemic.

In 2008, 95% of eligible children in Ukraine had received their second (and final) recommended dose of measles–mumps–rubella vaccine on time, according to the national routine vaccination schedule. By 2016, this rate had fallen to 31%, the lowest in the WHO European Region, and among the lowest in the world. In addition, in 2016 only 19% of children received the third recommended vaccine dose of diphtheria–tetanus–pertussis (DTP-3), and only 56% received the third recommended dose of oral polio vaccine (OPV).

During 2017–2019, Ukraine experienced the second-biggest outbreak of measles worldwide (after Madagascar), with 116 000 cases and 41 deaths. To combat the outbreak, the Regional Office launched a strategic response plan, covering several countries including Ukraine. Coupled with efforts by the Country Office

and UNICEF at the country level, this initiative meant Ukraine was able to increase immunization rates in 2019 to: 90% for measles, 50% for DTP-3 (a WHO–UNICEF estimate) and 71% for OPV third dose.

In October 2021, an outbreak of cVDPV2 poliovirus started in Rivne Oblast, with 20 cases confirmed in Rivne and Zakarpattia oblasts by December that year. An earlier, unrelated outbreak in 2015 of cVDPV1 type polio resulted in two cases. The 2021 strain was linked to an outbreak in Pakistan, which had spread to Tajikistan, where it also caused an outbreak. WHO assessed the risk of national spread of the virus as high, due to historically low immunization rates, and rated the emergency as grade two, according to WHO's Emergency Response Framework. WHO, UNICEF and the CDC then began an in-country response, as part of the Global Polio Eradication Initiative (GPEI), and in coordination with the government and local authorities. Supplemental vaccination of young children in the affected areas of Ukraine began immediately in October 2021. A national plan aiming to halt the outbreak was signed by the Minister of Health on 30 December.

Despite successful interventions to stop the spread of outbreaks, including the incidence of measles decreasing in 2020–2021 in response to national vaccination campaigns, more work remains to be done to fight vaccine hesitancy in Ukraine, and to foster a life-course approach to vaccinations. In 2020–2021, WHO continued supporting vaccination efforts and routine immunization in the country, including providing technical guidance throughout the COVID-19 pandemic:

- **In 2020–2021, WHO supported the government of Ukraine in developing and implementing the National Deployment and Vaccination Plan (NDVP) to combat COVID-19.** By the end of 2021, over 27 million doses of COVID-19 vaccine had been provided to the population. More details on the response to COVID-19 can be found in section 2.2 of this report. WHO also conducted a review to assess the impact of the pandemic on routine immunization practices.
- **WHO provided technical assistance to Ukraine on conducting a polio outbreak simulation exercise (POSE) to help critically review and update the national plan on maintaining polio-free status.** WHO's polio-related work over the biennium included participating in field investigations together with the Ukrainian response team, providing inputs for acute flaccid paralysis (AFP) surveillance activity for weekly situation reports and monitoring key surveillance data. The VPI team provided support on data compilation and analysis as requested by the response team.
- **WHO introduced and developed regional profiles for all 24 oblasts and Kyiv City, to monitor specific outbreak-prone diseases, namely measles and rubella, as well as AFP.** The profiles include the number of cases and immunization coverage. They have been used to understand the trends of these diseases and plan interventions, strengthening routine surveillance and immunization activity.

- **The Country Office updated Ukraine's national, normative documents on surveillance, immunization and outbreak responses for measles, rubella and diphtheria**, according to WHO's recent, global recommendations on best practice. WHO also provided technical assistance for the development of the national plan for the elimination of measles and rubella, and technical support for preparation and implementation of DTP-3 vaccination catch-up in children under 5 years of age.
- **Technical handouts were distributed to medical workers on vaccination, anaphylaxis diagnosis and management, cold chain storage of vaccines, vaccine administration and immunization safety.** More than 500 000 booklets and posters were distributed to all PHC facilities in Ukraine.
- **WHO provided advocacy, policy consultations and technical assistance on developing a country plan for delivery of pneumococcal conjugate vaccines (PCV13) and application to receive the Pneumococcal Advance Market Commitment (AMC) rate** for this type of vaccine from the Global Alliance for Vaccines and Immunization (GAVI). This rate, at US\$ 3.5 per dose, helped Ukraine to introduce PCV13 into the national immunization schedule in 2020.
- **WHO provided technical assistance on integrating immunization provision into Ukraine's new public health law.**



- **WHO participated in annual round table forums to monitor, in partnership with independent nongovernmental organizations (NGOs), the National Immunization Strategy.** WHO also provided country-wide advocacy and consultations for subnational immunization plans, to be aligned with the national strategy and multi-year planning.

1.7 HIV and TB services

Communicable diseases pose significant threats to human health, with the potential to threaten international health security. WHO's contribution to the prevention and control of communicable diseases in Ukraine in 2020–2021 primarily focussed on HIV and TB, and to a lesser extent viral hepatitis and other diseases, including sexually transmissible infections (STIs). WHO provided technical assistance and policy guidance to the MoH, NHSU, UPHC and national disease programmes to support and sustain universal access to people-centred, high-quality health services for communicable diseases.

In 2019, the Cabinet of Ministers approved the National Strategy on HIV/AIDS, Tuberculosis and Viral Hepatitis Response 2020–2030 (16), demonstrating commitments in line with the SDG goal to end these epidemics by 2030. There were demonstrable improvements in HIV testing and treatment between 2017 and 2020, with the percentage of people living with HIV (PLHIV) who know their status increasing from 56% in 2017 to 69% in 2020; those receiving antiretroviral therapy (ART) increasing from 72% to 83%; and those achieving viral suppression increasing from 89% to 94%. However, the Joint United Nations Programme on HIV/AIDS (UNAIDS) 2020 Global 90-90-90 Targets aimed to increase each of those figures to 90%.

With the second highest burden of HIV in the WHO European Region, Ukraine was a priority country for scaling-up HIV testing and treatment in 2020–2021. Although the number of people receiving ART for HIV increased between 2006 and 2020, there remains an urgent need to reach all PLHIV who remain undiagnosed, to scale up ART to reach those who remain untreated, to retain people in treatment and to achieve sustained viral suppression of those treated.

In 2020–2021, WHO supported Ukraine to achieve these and other goals to reduce communicable diseases. Ukraine showed comparative resilience in maintaining TB and HIV services during the COVID-19 pandemic. This work continued under the framework of the WHO Global Health Sector Strategies on HIV, viral hepatitis and STIs, and the WHO End TB Strategy; as well as through high-level United Nations meetings on TB, HIV and the SDG targets. Specific initiatives supported by WHO included:

- **WHO provided technical assistance and mentoring at the regional and facility level, on the systematic collection and analysis of standardized HIV (testing and treatment) data,** jointly with UPHC, CDC and the United

States President's Emergency Plan for AIDS Relief. HIV service providers from the district and city levels increasingly participated in remote site assessments, mentoring and support visits (webinars), as well as individualized support calls with WHO experts in 2021. These measures provide invaluable intelligence and data from the local level.

- **Better data in turn enabled a more nuanced understanding of HIV testing and treatment, improved forecasting and assisted in tackling procurement issues at the facility level.** These insights proved invaluable amid the ongoing impacts of COVID-19 and changes during the health reform process. The data facilitated evidence-based recommendations (including some site-specific) from WHO on expanding access and optimizing HIV testing, ART treatment and patient pathways.
- **Jointly with service providers and the UPHC, WHO developed simplified patient pathways and testing algorithms to expand access and optimize HIV testing, treatment (ART) regimens and related services.** WHO convened advocacy round tables with regional health authorities, preparing roadmaps with recommendations for improving service delivery.
- **WHO ensured the quality and continued improvement of HIV services through membership of UPHC working groups.** For the working group on improving HIV testing and treatment services and the development of standards for the care of PLHIV, WHO provided updated HIV clinical and service delivery recommendations.
- **WHO provided remote technical support to the UPHC to sustain and scale up oral pre-exposure prophylaxis (PrEP) services,** as well as advocating for this important preventative measure for people at high risk of HIV transmission. WHO has been a critical partner in Ukraine's PrEP HIV prevention efforts since the initial pilot in Kyiv in 2017–2018. WHO has provided technical guidance, onsite or online assessments, and monitoring of the programme roll-out across the country. In June 2021, a high-profile national PrEP conference was hosted by the UPHC, WHO and other partners, sharing Ukrainian and international experience in PrEP. The conference resulted in a consensus declaration to scale up PrEP rapidly.
- **WHO has worked to expand and scale up the Ukrainian opioid-substitution therapy/medication-assisted treatment (OST/MAT) programme,** to prevent HIV and hepatitis transmission among people who inject drugs. By 2020–2021, Ukraine had the largest OST/MAT programme in eastern Europe and central Asia. During the COVID-19 pandemic, MAT services remained resilient, including through increased use of take-home doses. In 2020, OST/MAT was included in the state-guaranteed benefits package. Nevertheless, coverage rates, though increasing, remained relatively low.

TB also remains an ongoing concern in Ukraine, which had the fourth highest rate of TB incidence in the European Region in 2020. While this rate had significantly

decreased over the previous 15 years – from over 127 cases per 100 000 population in 2004–2005 to 42.2 cases per 100 000 in 2020 – TB prevalence and mortality remain high in the country.

In 2020–2021 WHO supported a number of initiatives specifically related to TB prevention and treatment in Ukraine:

- **To support national health care plans in 2020–2021, WHO provided strategic guidance on TB treatment optimization and adaptation,** including the introduction of new WHO-recommended multidrug-resistant/extensively-drug resistant TB treatment regimes. In 2020, WHO and the WHO Collaborating Centre in Minsk led an online training for TB specialists in Donetsk and Luhansk non-government controlled areas (NGCAs) to introduce the new drugs and improve treatment performance. WHO continues to provide national and international expert training for TB service providers, regional and national TB programme managers and other UPHC specialists and responsible national partners.
- **In 2021, WHO and partners identified TB data collection and analysis as critical challenges and began to develop standardized TB data and performance indicators to present in standardized TB cascade profiles.** These profiles map the TB-affected population in terms of their exposure to services and needs.
- **From August 2021, the Country Office and the WHO Supranational Tuberculosis Reference Laboratory worked on an expert TB laboratory support mission in Ukraine.** This mission has provided technical support, requested by the UPHC, to improve the standards and procedures of the TB laboratory network. Deliverables in the final quarter of 2021 included a handbook for clinical practitioners on TB laboratory services, and preparing laboratories to receive accreditation for TB diagnostics in accordance with international standards.
- **In 2021, WHO supported the National TB and HIV Council to prepare, critically review and submit a funding request to the Global Fund's COVID-19 Response Mechanism.**

Throughout 2020–2021, WHO also delivered comprehensive technical reviews of NHSU PMG packages including for HIV, TB, OST and primary care. In 2020, WHO was a member of the government's working group on the HIV package, making recommendations about technical issues such as laboratory tests to be included, and health-care facility responsibilities for the elimination of mother-to-child transmission of HIV, including early infant diagnostics. In 2021, this hands-on policy work continued. The Country Office reviewed the HIV, TB and PHC service packages. Specific contributions from WHO included working with international partners to ensure the quality of antiretroviral drugs and TB medicines to be procured with state financing. In September 2021, new draft procurement regulations were accepted by the NHSU working group for the diagnostic, treatment and care package for PLHIV.

1.8 Mental health care

Throughout 2020–2021, COVID-19 and the conflict in the east of the country placed a heavy burden on the mental health of Ukrainians. Front-line health-care workers faced increased workloads and were often unprepared to cope with the new layers of stress brought about by the pandemic. The level of awareness of mental health issues among the population also remained low, with a high level of stigmatization of such conditions enduring.

However, in recent years, health financing reforms in Ukraine have aimed to incentivize the development of community-based mental health services. The goal was to integrate mental health services within general health-care provision, to broaden understanding of mental health and to move from a biological model of care offered by psychiatric hospitals towards a person-centred and community-based approach.

Prior to 2021, mental health services in Ukraine consisted of in- and out-patient psychiatric services that provided mostly pharmacological treatments, some leisure activities and some assistance to access social services. Generally speaking, psychiatric services were not designed to support community integration, such as access to education, housing or employment. PHC staff received limited training in mental health as a part of their formal education, and often did not feel confident in providing mental health care to patients.

In 2017, a concept note on mental health care development in Ukraine was written with the support of WHO, followed by the adoption of a National Mental Health Action Plan in 2021. The plan aimed to increase mental health awareness, integrate mental health services across the health-care system and to develop out-of-hospital forms of specialized care. It also aimed to reduce discrimination against those with mental health conditions and prevent human rights violations. The reform of the national health-care system provided an opportunity for the



transformation of mental health care services towards a person-centred and rights-based approach.

In 2019, WHO's Director-General launched the Special Initiative for Mental Health (2019–2023). The initiative seeks to ensure access to quality and affordable mental health services for 100 million more people globally, by focussing on 12 priority countries, including Ukraine. WHO in Ukraine supported this initiative in 2020–2021, beginning with an assessment of Ukraine's mental health services at the beginning of 2020.

This work was reinforced by the Regional Office's flagship initiative, the Mental Health Coalition, also launched in 2021. Ukraine joined other Member States aiming to mainstream mental health services within their development agendas and humanitarian responses. WHO supported Ukraine throughout the biennium to introduce and scale up innovative mental health services in primary and specialist health care.

Strengthening capacity of mental health services in primary health care

PHC is the cornerstone of access to health services. As such, it plays an essential role in promotion of mental health care, and prevention of common mental health conditions and their management. Because PHC services are decentralized, close to families and integrated in communities, including mental health services at the PHC level provides better access to these services, reduces stigma and enhances social integration.

For these reasons, WHO supported the MoH in 2020–2021 in introducing the management of common mental health conditions at the PHC level, using the resources of the WHO Mental Health Gap Action Programme (mhGAP).

Through trainings and supervision based on the mhGAP Intervention Guide (IG) 2.0 (17), 200 family doctors, paediatricians, therapists and nurses improved their skills in assessment, management and referrals for common mental health conditions. These conditions include depression, self-harm or suicidal thoughts, substance abuse disorders and others, such as medically unexplained somatic complaints and stress-related conditions. These trainings provided an enhanced capacity which enabled access to evidence-based mental health services for 140 000 people across the country, including areas affected by the conflict. WHO prepared 21 new mhGAP trainers in 2021 to support the further scaling up of the mhGAP IG 2.0 programme in Ukraine.

To further enhance the scale-up effort, WHO established an mhGAP implementation framework, and provided technical support to a group of humanitarian and development partners in Ukraine, all engaged in mhGAP activities. As a joint effort between partners, this enabled trainings and supervision to be provided to 126 more PHC workers during 2020–2021, thereby ensuring access to services for 198 000 more people.

WHO also supported national universities in introducing the mhGAP IG 2.0 into the curriculum for medical students and post-graduate thematic learning courses.

Mental health services in prisons also received attention as part of the mhGAP IG 2.0 programme roll-out. The visit to Ukraine of Dr Hans Henri P. Kluge, WHO Regional Director for Europe, in December 2020, marked the beginning of WHO's initiative to increase the capacity of penitentiary workers in identification and management of common mental health conditions using the mhGAP technical package. Severe mental health disorders are far more prevalent in prison populations than in the broader community. In particular, non-affective psychoses are up to 16 times higher and major depression up to six times higher. Being disproportionately affected by the COVID-19 pandemic, prisoners needed targeted support to protect their mental health. In cooperation with the Ministry of Justice and the Healthcare Centre of the State Penitentiary Service, WHO delivered trainings and supervision for 29 facilities, including pre-trial facilities. By the end of 2021, 158 consultations were provided to patients with mental health conditions by trained staff using the mhGAP IG 2.0 approach.



Enhancing family doctors' capacity to counsel patients

Dr Levhen Yatsura is a family doctor working in the Ukrainian city of Kramatorsk, at the Family Medicine Centre No. 1. He observed that more than 40% of his patients have some kind of mental health problem, related to stressful events at work, school or at home. "The mhGAP approach helps significantly in my day-to-day responsibilities," said Dr Yatsura. "The programme includes a practice where I don't interrupt the patient while they tell me about everything that worries them. Then I use leading questions to understand which problem is the most important and try to deal with it in several ways. We explain what it is, how to deal with it, and try to engage the patient in some kind of activity," he added.

Strengthening the capacity of specialist mental health services

During 2020–2021, WHO extended its support to transform specialist mental health services in-line with a person-centred and rights-based approach. WHO pioneered an innovative service model, which was later implemented by government agencies.

Between 2015 and 2021, WHO ran a successful pilot programme establishing community mental health teams (CMHTs), initially designed to address the mental health needs of the population affected by the conflict. The teams consist of psychiatrists, psychologists, nurses and social workers, and provide pharmacological and psychosocial interventions through home visits, as well as visits to community locations (such as parks, cafes or the location of other services in the community). One team operates across a catchment area with a population of 150 000–200 000.



The CMHTs assisted individuals with severe mental health conditions that cause significant impairment to their functioning, social problems, multiple recent hospital admissions and/or low turnout at out-patient services. The CMHTs worked in a recovery-focused way to support people to live in the community. They helped to prevent avoidable hospital admissions, were able to engage family members and other support networks, and helped individuals to access general health-care services (maintaining good physical health) and other services such as education, housing, employment and social protection.

In 2020–2021, WHO expanded its programme to train 21 CMHTs in 19 oblasts of Ukraine, including four teams in Donetsk and Luhansk. The training package was updated with recent WHO guidance on recovery and rights-based approaches to mental health services, and the teams received weekly supervision. WHO covered the operational costs of the CMHTs until 1 July 2021, after which they began to be funded by the NHSU. During 2020–2021, 21 CMHTs supported by WHO conducted 17 208 visits to patients.

In 2021, the CMHTs were scaled up by the MoH and NHSU across the country. From 1 July, 61 CMHTs from various oblasts applied for a newly established service package as part of the PMG, providing mental health services to 4000 people.

1.9 Rehabilitation services and access to assistive technologies

Rehabilitation is an essential part of UHC, along with prevention, promotion, treatment and palliative care. Rehabilitation and assistive technologies (AT) help those suffering from a health condition, impairment or injury, whether acute or chronic, to be as independent as possible, reducing functional limitations and increasing quality of life. People with severe, long-term impairments benefit from rehabilitation for extended periods of time. However, rehabilitation services may also be required in a range of different health contexts, such as after an acute illness or injury (such as a burn or musculoskeletal injury); due to a chronic condition (such as diabetes, cardiac failure or lower back pain); or to facilitate recovery following a surgery.

Until recently in Ukraine, the rehabilitation system followed a predominantly bio-medical approach, which tended to neglect an understanding of disability and functional limitations as arising out of a complex interaction of diverse factors, including psychosocial ones. However, increased demand for rehabilitation services and AT, driven by the high incidence of chronic diseases in Ukraine and the long-term armed conflict in the east, drove a necessary transformation of these services in the country between 2015 and 2020.

In 2015, Ukraine developed the National Disability, Health and Rehabilitation Plan. National authorities then took significant steps to modernize rehabilitation services, supported by WHO. New rehabilitation professions (such as occupational therapy and speech and language therapy) were introduced, supported by necessary changes to education programmes, training and legislation. This resulted in a strengthening of the health workforce for rehabilitation, and an increased awareness of modern rehabilitation principles.

Access to rehabilitation services was also prioritized through the PMG, which from April 2020 offered three packages for medical rehabilitation services. In 2020, 211 health-care facilities were contracted for neurorehabilitation, 222 for

musculoskeletal rehabilitation and 63 for child rehabilitation programme delivery. Moreover, in December 2020 the landmark *Law on rehabilitation in health care* was adopted, providing a legislative basis for the strengthening of rehabilitation services across the continuum of care, aimed at providing services from the very first day of an injury or trauma.

In 2020–2021, WHO supported the further development of rehabilitation and AT services in Ukraine through the following initiatives:

- **Under the Regional Office's four-year initiative on rehabilitation (2018–2022), the Country Office supported Ukraine through technical guidance and recommendations on strengthening, improving and scaling up rehabilitation and AT services.** Assistive products such as wheelchairs, hearing aids, walking frames, reading glasses and prosthetic limbs are essential to enable people with functional limitations to live productive and dignified lives.
- **In 2020, WHO launched a thorough assessment of the rehabilitation situation in Ukraine, covering the health system's building blocks:** governance, human resources for health, financing, health products and information systems. Following an expert mission in September 2020, policy dialogues with government and other stakeholders continued throughout 2021. A detailed report, *Situation assessment of rehabilitation in Ukraine (18)*, was published in 2021, providing an overview of rehabilitation services in Ukraine. The report outlined key achievements, needs and opportunities for further intervention in the field of rehabilitation, guiding development in the sector.
- **In 2020, WHO led a country mission in Ukraine to assess the AT situation, applying the Assistive Technology Capacity Assessment (ATA-C) tool,** a system-level tool for evaluating a country's capacity to finance, procure, regulate and provide AT. In 2021, the findings were discussed with the Ministry of Social Policy. These discussions focussed on how to improve the system of integrated provision of AT for people in need and how to increase efficiency in the sector, the quality of the products and the satisfaction of clients.
- **WHO provided technical guidance on the legislative changes needed to ensure access to rehabilitation services to everyone in need.** The previous legal framework for rehabilitation and AT services in Ukraine reflected a largely outdated approach to disability, and mainly covered those with a certified disability. Legislative developments in 2020–2021, including the *Law on rehabilitation in health care*, and changes to relevant bylaws, improved access to rehabilitation services. The country adopted WHO's definitions as grounding principles for its legislative framework, making rehabilitation an integral part of the health system and making such services available for all those in need.
- **WHO conducted a rapid household survey on AT to understand the real needs of Ukrainians for specialized products,** to improve their functioning



in everyday life. The results of the national survey, covering more than 7000 respondents, were presented to the Ministry of Social Policy and Office of the President to help reframe the provision of AT services.

- **Responding to the pandemic, WHO supported the development of guidance for the population on rehabilitation after contracting COVID-19.** The guidance was needed particularly for regional areas, where it was disseminated, advising those severely hit by the virus on how best to self-manage their care with, for example, basic exercises for rehabilitation.

1.10 Health workforce

Health-care workers are essential for building stronger health-care systems. However, mere availability of staff is not sufficient. The ability of health systems to perform well and respond to challenges is linked to the education and training that health-care workers receive, their locations and where they are needed. Retaining staff depends on the ability of health systems to offer a motivating and engaging environment that allows individuals to fulfil their career goals and enhance their core competencies over time.

In 2020–2021, the critical role of health-care workers became even more evident, as they bore the brunt of the response to COVID-19. The pandemic made clear that health-care workers have a critical role to play in the resilience of communities.



In Ukraine, the overall health-care worker density – including physicians, nurses and midwives – increased from 8 workers per 1000 population in 1990 to 12.9 in 2017. However, absolute numbers fell due to dynamic patterns of a falling population and migration out of the country of well-trained health professionals. Low wages and limited opportunities for career development resulted in a decline in the number of nurses, feldshers and midwives from 1990. Additionally, the Ukrainian health workforce is relatively old, with almost 25% of physicians at the age of retirement.

In 2020–2021, WHO advocated for the recognition of nurses, and the essential role they play in health-care delivery. Leveraging the opportunity of 2020 being the International Year of the Nurse and the Midwife, WHO supported public campaigns to raise awareness of their critical role in the COVID-19 response and in providing ongoing care for those in need of essential services. In 2021, WHO released a report providing analytical insight into their role at the PHC level, identifying where their responsibilities could be enhanced (14).

The vital role of nurses in the provision of health services

Nadiya Labanda is the Chief Nurse of Chernivtsi Oblast in western Ukraine, which was the first to detect COVID-19 infections. She coordinates the work of almost 7000 nurses across the region.

“People have gained an understanding of the importance of our work,” she explains, speaking of the COVID-19 pandemic.

“Nurses are at high risk of being infected, as we spend most of our time in close contact with patients. People are now expressing their gratitude either in person or on social media. Some have even donated sanitizers,



detergents and protective gowns for us and other health-care workers.”

Nadiya, who holds a master’s degree in nursing, recognizes the changes in the role of nurses in recent years. “It has been difficult for us nurses to get the recognition we deserve and to be acknowledged as a profession with an independent scope of practice,” she explains. “But it is through my own work that I want to showcase the important role that our profession plays in patients’ health.”

1.11 Access to medicines, vaccines and health products

Access to safe, effective and affordable medicines, and other health products such as vaccines, is a global priority for WHO. It is central to achieving UHC and crucial to achieving the SDGs by 2030.

In Ukraine, the launch of an outpatient reimbursement scheme in April 2017, the AMP, contributed to a significant increase in access to medicines. During 2020–2021, however, out-of-pocket payments for medicines remained a leading cause of high health costs. This was especially true for vulnerable households, with the incidence of impoverishing out-of-pocket payments remaining high. Issues addressed during 2020–2021 included improving the quality assurance of medicines and expanding the list of reimbursable medicines and medical devices. WHO efforts to redress these issues included the following:

- **WHO supported the procurement and supply management practices of the Central Procurement Agency (CPA) through capacity-building programmes.** WHO conducted 14 workshops for the CPA in 2020, providing guidance on WHO standards for procurement best practices. In August 2021, a series of trainings were launched for CPA employees on licensing and certification of importers and distributors, validation of pharmaceutical warehouses, and other important topics to promote WHO norms and standards.
- **Ukraine's regulatory capacity was also strengthened through improved quality assurance procedures and a focus on capacity-building for the National Regulatory Authority (NRA).** Key activities focused on enhancing the surveillance of drugs after their release on the market and monitoring for substandard and falsified health products.



- **Policy dialogue sessions took place to facilitate the NRA's use of WHO's Global Benchmarking Tool (GBT) to identify strengths and areas for improvement.** The GBT objectively evaluates regulatory systems for assuring the quality, safety and efficacy of medical products.
- **A series of technical meetings took place with the State Service on Medicines and Drug Control** to determine the possible mechanisms and funding sources to support the development of a quality control and reporting mechanism used for health products obtained through public procurement.
- **WHO provided technical support to the MoH and NRA to ensure best practice when the National Essential Medicines List was updated.** The updated list was based on the WHO Model Lists of Essential Medicines (19) and the manual *Selection of essential medicines at country level* (20). WHO provided the necessary advice and capacity-building for the MoH and the Expert Committee on Essential Medicines Selection.

Ensuring access to COVID-19 treatments

Andrii, a 25-year-old doctor living in the city of Khmelnytskyi in western Ukraine, experienced the changes in the health system during the pandemic, both as a doctor and a patient. These changed circumstance led to new practices to ensure access to medicines to treat COVID-19.

In March 2020, Andrii began to feel unwell. Armed with the right medical knowledge, he immediately self-isolated from his wife and other family members. As his symptoms worsened, he called an ambulance and eventually tested positive for COVID-19 while staying in hospital.

"When I was at the hospital, testing and examinations were free of charge, but I had to find and buy my own medicines while my family members were in 14-day isolation."

Some health-care workers helped Andrii to find the necessary drugs while he isolated. However, he had to pay upfront fees for this treatment. Like many Ukrainians, he faced direct out-of-pocket expenses to receive necessary medication. However, the Government of Ukraine, supported by WHO, has now acted to ensure patients can be both tested and treated for COVID-19 free of charge.



2. Addressing health emergencies





WHO's GPW 13 outlines health emergency preparedness and response as one of the Organization's strategic priorities. The goal is to build and sustain resilient national, regional and global capacities to protect the world from public health emergencies. These efforts support populations heavily affected by acute and protracted emergencies, underpinning their continued access to essential health services.

In 2020–2021, the conflict in eastern Ukraine was assessed as a grade two emergency, according to WHO's Emergency Response Framework. From March 2020, the COVID-19 pandemic was assessed as a grade three emergency. And in October 2021, Ukraine experienced another grade two emergency, in the form of a polio outbreak starting in Rivne Oblast. These intersecting health emergencies in Ukraine underscore the critical importance of preparedness work.

WHO supported the Government of Ukraine, the MoH, and key national and international partners, to strengthen national health preparedness and response capacities. WHO contributed to building Ukraine's core capacities of risk preparedness, detection and management, while also responding directly to immediate health emergencies.

2.1 Health emergency preparedness and the International Health Regulations

Prevention, preparedness, response and recovery, should be understood as a continuum, laying the foundations for protecting people from health emergencies. The COVID-19 pandemic demonstrated to the world the importance of building strong health emergency response systems. Global health security depends on the continuous improvement and strengthening of the International Health Regulations (IHR) at the country level.

What are the International Health Regulations?

The IHR are an instrument of international law that is legally binding on 196 countries, including WHO's 194 Member States. They provide an overarching legal framework that defines countries' rights and obligations in handling public health events and emergencies that have the potential to cross borders. These obligations include the requirement to report public health events. The IHR outline the criteria for determining whether an event constitutes a public health emergency of international concern. The IHR also require countries to establish and maintain core capacities of surveillance and response, including at designated points of entry for international travel. For example, certain health documents are required for international travel.

During 2020–2021 in Ukraine, strengthening the IHR focussed on four key challenges: enhancing national legislation in support of the IHR; identifying stakeholder responsibilities in the national surveillance system and updating the early warning system for epidemiological surveillance; strengthening points of entry into the country; and empowering preparedness and response focal points with a clear national all-hazards response approach.

In 2020–2021, the Country Office supported emergency preparedness in Ukraine through the following initiatives:

- **WHO visited 18 points of entry into Ukraine to assess the implementation of the IHR at the local level.** In 2021, the Regional Office's Country Health Emergency Preparedness and IHR team conducted assessments to support advice to the MoH and UPHC on improving the implementation of the IHRs at land, sea and air crossings. This assisted the UPHC in developing a detailed plan for 2022. As part of its mandate, WHO also facilitates information-sharing between Ukraine and other WHO Member States, in accordance with the IHR.

- **WHO supported the Government of Ukraine to conduct an IHR Joint External Evaluation (JEE), completed in December 2021.** The JEE is a collaborative, multisector assessment process, designed to determine a country's capacity for preventing, detecting and responding to public health risks. Ukraine's capabilities in 19 areas were evaluated over the course of a year through a peer-to-peer process bringing Ukrainian experts together with members of the WHO JEE team. The technical areas covered ranged from legislative mechanisms to immunization coverage and emergency response operations. Through this process, the country evaluated its current preparedness together with international experts. Consensus was reached on 75 priority action points.
- **WHO supported the Government of Ukraine in One Health by strengthening the intersectoral collaboration and coordination between the public health, animal health and environmental sectors.** The One Health approach enhances preparedness for public health emergencies, and immediate response, by strengthening cross-sectoral coordination between all of these sectors. This was achieved by organizing a series of assessments and events – including the JEE, simulation exercises, webinars and working group meetings – to identify gaps and develop recommendations for relevant agencies in Ukraine.
- **WHO led the development of Ukraine's COVID-19 Country Preparedness and Response Plan (CPRP) and supported its adaptation throughout 2020–2021.** As the lead coordinator of WHO's global Strategic Preparedness and Response Plan for COVID-19 in Ukraine, the Country Office worked with its partners to draft the CPRP according to local needs. Four versions of the CPRP were then updated over the course of the pandemic due to the changing, dynamic context.
- **WHO supported the Government of Ukraine in establishing its first Public Health Emergency Operation Centre (PHEOC),** an essential component in ensuring the centralized coordination and strategic management of public health emergencies. This centre aimed to bridge gaps to facilitate better collaboration among local agencies within the national response system. It also improved risk assessment capacities to better guide an evidence-informed response.
- **WHO provided increased support for infection prevention and control (IPC) in Ukraine.** Cutting across almost all emergency response activities is the need for increased IPC equipment and training for health-care professionals, and in the case of COVID-19, for the community as a whole. As such, WHO's response to emergencies includes building the country's long-term capacities in this area. WHO's contribution to IPC in health-care facilities includes not only deliveries of equipment, but technical support visits and on-site trainings. For example, as part of the COVID-19 response, 63 webinars and two online schools were conducted on IPC and related topics, with more than 5000 health-care workers participating.



National pandemic influenza preparedness and response

In 2020, Ukraine began to receive support from the Pandemic Influenza Preparedness Framework (21), a global initiative that funds pandemic influenza preparedness capacity-building and response activities. The COVID-19 outbreak then put many of the planned activities under this scheme on hold. However, surveillance practices developed for influenza, such as collecting samples and data analysis, were used in order to rapidly roll out a surveillance system for COVID-19.

In 2021, influenza preparedness activities were fully resumed. WHO supported these activities by:

- helping to expand the network of severe acute respiratory infections (SARI) surveillance regions from 6 to 12, including 33 sentinel sites;
- visiting 19 SARI sites and checking surveillance organization and methodological practices on case enrolment and sample collection;
- collaborating with Ukrainian officials to provide trainings in each of the 12 sentinel regions for 94 national specialists to strengthen influenza preparedness.

2.2 Response to the COVID-19 pandemic

In 2020–2021, WHO supported the Government of Ukraine in developing and implementing a comprehensive response to the COVID-19 pandemic. At the beginning of the pandemic, the country experienced significant shortages of equipment and medical supplies, including masks, protective suits and ventilators. The capacity of laboratory testing was also limited, and the conflict in the east of the country hampered efforts to contain the virus.

Within this context, WHO worked with the MoH, the UPHC, other government agencies, international partners, donors and local actors, to cumulatively grow and strengthen Ukraine's health-care system. These collaborative efforts helped saved countless lives.

However, the pandemic significantly impacted Ukrainian society, both in terms of lives lost and disruption caused. The first COVID-19 case in Ukraine was registered on 2 March 2020; the first death on 13 March. The government and public health authorities responded quickly by implementing comprehensive national quarantine measures. That same month, the first CPRP came into effect. The government also established the PHEOC within the UPHC, to monitor the situation and coordinate the response.

By the end of 2020, more than a million COVID-19 cases had been confirmed in Ukraine. By the end 2021, that number had reached 3.5 million, including nearly 90 000 deaths. Kyiv City was the region with the largest number of confirmed cases, followed by Odessa and Kharkiv oblasts. The regions with the highest mortality rates per 100 000 population were Kyiv City, Lviv Oblast and Chernihiv Oblast.

Ukraine made considerable progress towards vaccinating the population against COVID-19 in 2021. WHO supported the government in developing and implementing the NDVP. Between July 2020 and February 2021, briefings on the COVAX registration process were conducted, the NDVP was drafted and vaccination trainings for health-care workers begun. The first vaccinations took place in February. By the end of 2021, over 27 million doses of COVID-19 vaccine had been administered to the population.

WHO provided strategic guidance and day-to-day advice, and implemented a wide range of programmes as part of the COVID-19 response. These activities were organized under the 10 strategic pillars of the CPRP. The Regional Office's Health Emergencies team worked closely with health authorities and partners to agree on those priorities and to implement actions. These efforts were successful in reducing the overall impact of COVID-19 in Ukraine.

Coordination

WHO actively supported the government to plan and coordinate the response to COVID-19 from the earliest days of the pandemic. WHO's work on health

emergencies preparedness, both internationally and in Ukraine, formed the basis for developing a detailed in-country response. The government's establishment of the PHEOC, following WHO's advice to countries for managing public health emergencies, marked a significant step towards the centralized and strategic management of the pandemic.

WHO led the development and subsequent updates of Ukraine's CPRP, which describes the objectives, policies and actions for the response, the government authorities undertaking them and actions to be taken by WHO. These actions are in turn coordinated with a wide range of international humanitarian organizations and local NGOs through the Ukrainian Health Cluster, a key coordinating mechanism for improving health service delivery.

In January 2021, WHO supported the government in conducting an Intra-Action Review, bringing more than 130 participants from government authorities and United Nations agencies together to review the COVID-19 response thus far. Priorities identified included the need for an improved legal framework for emergency preparedness in the field of public health, further risk communication efforts, and health-care worker training strategies. Results from the Review were integrated into the fourth CPRP, published in May 2021.

Risk communication

Communicating the risks of COVID-19 to the public, as well as providing information for health-care workers on medical practices to stop the spread of the virus, made up a fundamental part of WHO's contribution to the emergency response in Ukraine. WHO tailored its messages on risk prevention and medical best practice based on cutting-edge research on the disease. Community engagement with



local stakeholders and behavioural research also informed messaging.

In May 2020, WHO conducted a survey of adult Ukrainians to understand their knowledge, risk perception and consequent behaviours with regard to COVID-19. The results were used in a behaviour change campaign reaching more than 20 million people. The messaging appeared on billboards, in supermarkets, and on buses and trams.

Digital campaigns in partnership with the Ministry of Culture and Informational Policy, as well as the MoH and UPHC, reached an estimated 6 million people. For the health workforce, posters and instructional videos on the proper use of biomedical equipment, oxygen safety, and the effective use of personal protective equipment (PPE), were distributed to hundreds of COVID-19 hospitals.

Epidemiological surveillance

New technologies have been central to the surveillance and prevention of COVID-19 cases in Ukraine. The mobile application *Diya vdoma* (Action at home), for example, was developed to support self-isolating COVID-19 patients.

WHO trained more than 200 contact tracers and epidemiologists from Oblast Centres for Disease Control and Prevention (OCDCs) in Chernivtsi and Odessa to use WHO's GoData contact-tracing application for outbreak responders. WHO also supported 12 priority OCDCs to conduct in-depth epidemiological situation analyses, using up-to-date data.

In another initiative, WHO worked with the UPHC to draft national SOPs regarding contact-tracing, self-isolation, medical care and follow-up for COVID-19 patients, as well as their close contacts. To provide health-care workers with up-to-date training on surveillance, epidemiology and IPC, WHO established an e-learning platform within the UPHC's existing educational platform, translating trainings from the global OpenWHO education site.

Infection prevention and control

Stopping the spread of COVID-19 in hospitals and communities requires up-to-date PPE and medical equipment. In 2020–2021, WHO delivered more than 1.8 million PPE items, including more than 500 000 isolation gowns, 200 000 respirators, 700 000 pairs of gloves, 100 000 goggles and more than 7.7 million medical masks in Ukraine.

This direct support to more than 250 medical facilities was part of a multi-level effort that included supporting the MoH to design and implement effective regulations and establish national IPC standards in line with international best practice.

Education for health-care workers has also been a key area of focus in IPC, with more than 7000 trained by WHO through on-site and online trainings. More than 190 technical support visits and on-site trainings were conducted in COVID-19 designated hospitals, including trainings on PPE use and hand hygiene.

Laboratories and diagnostics

Expansion of laboratory facilities throughout 2020–2021 was successful in achieving a massive increase in polymerase chain reaction (PCR) testing capacity using both public and private laboratories. Ukraine's daily COVID-19 testing capacity increased from around 200 per day to 80 000 per day by April 2021.

This was achieved through investment in public laboratories and an action plan engaging the private sector. WHO assessed how best to rapidly increase Ukrainian PCR testing capacities in April 2020. The resulting MoH-endorsed strategy included unified SOPs, personnel training and purchases of needed consumables to increase both capacity and quality.

Standards were also maintained by WHO's international Proficiency Testing Programme for the Detection of SARS-CoV-2 by PCR. This programme engages with and then reports back to laboratories on their testing accuracy. In Ukraine, 133 laboratories participated in the programme.

Clinical management

WHO supported front-line responders to COVID-19 by developing, disseminating and continually improving essential guidance for health-care workers on clinical



management for patients. Two examples of this kind of distributed guidance for health-care workers included the *Clinical care for severe acute respiratory infection* toolkit adapted for COVID-19 (22), and the *COVID-19 patients flow algorithm*, both of which are tools medical professionals can use on-site. These materials were distributed to 457 COVID-dedicated health-care facilities across the country.

In addition, over the course of the pandemic, 5800 specialists benefited from clinical management trainings, webinars and on-site visits.

WHO also conducted an audit of 471 COVID-19 hospitals to determine oxygen capacity needs across the country, and directly supported 255 COVID-19-designated hospitals to scale-up oxygen capacity, with donations of modern equipment. Oxygen therapy is the only effective treatment for severe cases of COVID-19.

Mental health

Emergencies are associated with increased burdens on mental health. Health-care workers are among the groups most susceptible to these negative mental health impacts. Psychological stress can cause long-lasting effects and may also affect the quality and safety of the services medical professionals provide.

In response to the pandemic, WHO developed a training package in cooperation with the UPHC called, Mental Health and Psychosocial Support (MHSSP) During COVID-19 Preparedness, Response and Recovery (23). The training was designed for front-line health-care workers and managers to orient them in MHSSP during emergencies, including self-help strategies. It consisted of three online modules and one follow-up individual consultation with facility management. Overall, 389 facilities from all regions of Ukraine registered to participate in the training. Of those, 227 facilities (58%) engaged in the online modules. Over 300 health-care managers and 510 health-care workers were trained during July–December 2020.

Increased workloads were one of the major factors contributing to poor mental health outcomes for front-line health-care workers during the pandemic. More than half (58.6%) of health-care personnel that took part in the MHSSP training reported in a questionnaire that they had worked over 40 hours per week in the previous 14 days. Of those that registered for the training, 23% reported working over 50 hours per week.

COVID-19 vaccinations

As well as supporting the government through the COVAX registration process and development of the NDVP, WHO performed a wide range of actions to support COVID-19 vaccination throughout 2020–2021.

WHO supported the training of health-care workers to safely store and administer vaccines. Trainings for the first 50 mobile outreach and vaccination teams began in February 2021. Afterwards, a cascade approach was used, in which trainers

were trained to then educate other health-care workers. WHO technical experts continued to provide support to these regional trainers through a dedicated chat group, in which the trainers could post questions and receive up-to-date WHO and national guidance. By the end of 2021, almost 75% of health-care workers delivering COVID-19 vaccines had been trained through this programme.

Monitoring for vaccine safety was another major area in which WHO contributed. From May 2021, WHO visited all 24 regions and Kyiv City to support and monitor the implementation of the COVID-19 vaccination campaign.

WHO also supported Ukraine's vaccination efforts through purchases of equipment and communication campaigns. In Dnipropetrovsk Oblast, two buses were procured and donated to improve access to target vaccination groups. WHO participated in the national postal service (Ukrposhta) campaign to increase vaccine uptake among the elderly, as well as in the Coalition for Vaccination, made up of NGOs. The Coalition conducted a series of round-table discussions to engage local community leaders in the delivery of COVID-19 vaccination to priority groups.

Maintaining essential health services

Ukraine's essential health services showed comparative resilience in the face of the pandemic. At key turning points in the emergency response (late summer 2020, winter 2020–2021 and spring 2021) WHO supported Ukraine to organize surge planning to prepare for strains on the health-care system.

WHO also assessed the impact of COVID-19 in key areas of the health system in order to apply strategies to maintain health services. In 2020, WHO conducted a review of routine immunization practices during the pandemic. WHO's VPI team developed a monthly immunization technical brief for health authorities and personnel on the progress of routine immunization coverage across the regions. By April 2021, 381 health-care workers had been supported by WHO-UPHC distance supervision for routine immunization and surveillance.

To review the 2021 PHC service package within the PMG, WHO assessed 250 facilities online and 33 in-person. Similarly, on HIV testing and treatment service delivery, WHO monitored all 24 oblasts, Kyiv and four other cities to assess the impact of COVID-19.

Supplies and logistics

The procurement and distribution of WHO quality-controlled medicines, medical and laboratory equipment, and technologies for health emergencies, is a complex task. It includes the supply of oxygen concentrators, invasive and non-invasive ventilators, sophisticated laboratory technology and health consumables. This multidisciplinary work relies on the diverse professions working at the Country Office, such as pharmacists, laboratory experts, bioengineers, procurement and supply-chain specialists, as well as medical and generalist logisticians.



WHO procures both locally and internationally, importing medical supplies on a large scale thanks to the generous donations of the Organization's financial partners. WHO has enabled the consolidation of local production of PPE products, manufactured by Ukrainian firms, by evaluating these items as WHO-quality controlled, ensuring compliance with WHO standards. Nine products (such as masks, respirators and gowns) from six manufacturers have successfully passed the necessary tests in WHO collaborating laboratories.

WHO has delivered these products directly to hospitals and laboratories, ensuring accountability to donors and patients. To achieve this, the Country Office coordinated shipping and customs clearances, liaising with government authorities and service providers, while navigating complex national and regional administrative processes. WHO managed a network of field warehouses to enable the direct distribution of products to health facilities throughout the pandemic.

WHO coupled these deliveries with specialized training for health-care workers on the use of health products, and for hospital engineers on maintenance. After delivery, WHO managed equipment maintenance and warranties through a comprehensive tracking and reporting system developed by the Country Office, to keep abreast of health facilities' future supply needs. Exercising this important duty of care ensured full financial compliance with funding arrangements, supported the sustainability of programmes and secured continuity of action for beneficiaries in facilities.

Through this combined effort, WHO was able to provide crucial, large-scale support directly to over 500 facilities for Ukraine's COVID-19 response.

2.3 Access to essential life-saving health services in eastern Ukraine

Throughout 2020–2021, millions of people in Ukraine continued to be affected by violent conflict in Donetsk and Luhansk oblasts. On 27 July 2020, a ceasefire agreed to by the Trilateral Contact Group came into force, bringing about a temporary decrease in hostilities. However, civilian casualties continued to occur, and civilian infrastructure frequently came under fire. Breaches of the ceasefire agreement gradually resulted in a return to the pre-ceasefire levels of violence, before the conflict intensified in early 2022 with the Russian invasion of Ukraine.

By the end of 2021, some 3 million people needed humanitarian assistance due to the conflict, including those in GCAs and NGCAs, as well as internally displaced people. The conflict severely impeded access to health services for people in these areas, from the start of hostilities in 2014. As indicated by the *Humanitarian needs overview of early 2020* (24), 38% of households within 20 km of the contact line and 57% living within 5 km faced significant challenges accessing life-saving essential services.

COVID-19, beginning in 2020, imposed a significant new challenge in the conflict-affected areas. An extremely weakened health-care system in these areas faced an enormous challenge to contain the virus. The number of confirmed cases increased rapidly. By November 2021, the Donetsk and Luhansk oblasts had recorded 211 000 cases of COVID-19. Available data from NGCAs suggest the situation was similarly severe throughout the pandemic.

Restrictions on movement and an increasingly fragile regional economy due to COVID-19 significantly exacerbated the health risks faced by people living in the conflict-affected areas. The weakened health-care system faced the additional burdens of increased demand for health surveillance, bed occupancy, clinical case management, laboratory work and immunization services.

The incidence of other infectious diseases meanwhile – including TB, HIV and respiratory infections such as influenza and pneumonia – were of significant concern as COVID-19 put pressure on the health-care system. A lack of routine immunization services posed the risk of outbreaks of vaccine preventable diseases such as measles and polio, particularly among children. Pre-existing mental health problems also intensified, as an increasingly stressed population dealt with the uncertainty of conflict, and isolation caused by the COVID-19 pandemic.

WHO supported the disrupted health-care systems in eastern Ukraine at all levels, and on both sides of the contact line, throughout 2020–2021. WHO did this by providing, installing, and repairing high-tech medical equipment; by developing locally adapted technical guidelines; and by delivering life-saving medicines and consumables. WHO established a localized, high-performance diagnostics capacity for communicable and noncommunicable diseases, and established a new model of mental health outreach services, adapted to the local environment. WHO's other initiatives in the conflict zones included providing supplies and training to

health-care workers to protect them and their patients from chemical threats and infectious pathogens. WHO analysed and supported local health financing capacities in partnership with NGOs in GCAs, to develop and maintain sustainable health solutions. And in NGCAs, WHO assessed and supported remote hospitals.

This all-encompassing action by WHO, at all levels of health care, directly contributed to the health of 1.5 million patients, on both sides of the contact line. In 2021 alone, more than 700 health-care workers were trained in eastern Ukraine on topics such as IPC, vaccination, hand hygiene and trauma care. Overall, over 1100 health-care workers participated in 31 training sessions.

WHO strengthened the capacity of health-care facilities to respond to COVID-19 by equipping seven hospitals in NGCAs with oxygen supplies, and by providing equipment to all public laboratories and training laboratory staff. Overall 33 health facilities in NGCAs received various types of support from WHO.

Physical deliveries by WHO to NGCAs amounted to more than 950 m3 of medical supplies, including:

- clinical management supplies and equipment to treat infectious diseases and trauma-affected patients, and to reinforce the emergency medicine system;
- supplies, reagents and equipment to scale up the diagnostics capacities of laboratories;
- supplies and equipment to protect health-care workers and patients from infectious diseases;
- supplies to support epidemiological surveillance and vaccination efforts.

These deliveries were consistently linked to specialized training on how to use the equipment or medicines delivered, as well as overall capacity improvement for the benefit of patients in those areas. Delivery of new equipment was also coupled with a programme of review and repair of existing equipment.

This action by WHO contributed to the establishment of a functioning system of diagnostics for the population in conflict-affected areas, to enable timely treatment of various communicable and noncommunicable diseases. It permitted life-saving treatment for war-wounded patients as well as those with severe conditions, including COVID-19 and other infectious diseases. It also contributed to the prevention of future health emergencies by limiting the spread of infectious pathogens.

Coordination in the eastern areas

As part of its mission in Ukraine in 2020–2021, WHO participated in the Health Cluster, the main coordinating mechanism for improving health service delivery in the eastern oblasts. In late 2021, the Health Cluster stepped up its emergency preparedness efforts, given the potential for escalation of the conflict. WHO worked

What is the Health Cluster?

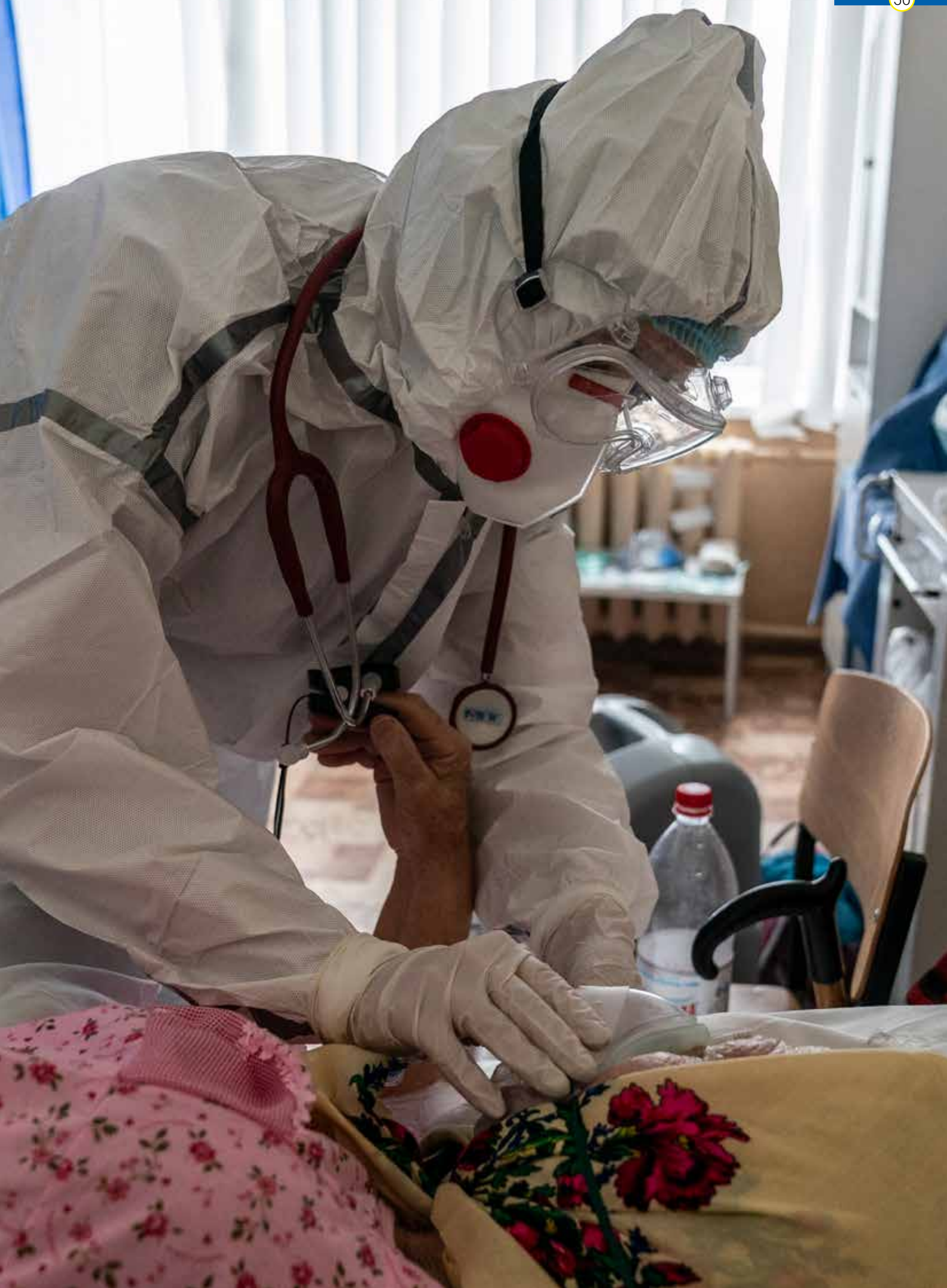
A Health Cluster is a coordination mechanism used to meet the humanitarian needs of crisis-affected peoples in a reliable, effective and inclusive manner. Health Clusters involve coordinators and representatives from the organizations acting in a given context. They collectively prepare for, and respond to, humanitarian and public health emergencies to improve health outcomes.

During 2020–2021, the Ukrainian Health Cluster took action on both the COVID-19 pandemic, across the country, and on maintaining health services in the conflict-affected eastern regions of the country. It involves over 70 health partners, and has coordinated, updated and revised the Humanitarian Response Plan (HRP) each year of the conflict. The HRP is at the centre of planning and coordinating health services in the conflict-affected areas. Planning an efficient response involves compilation and analysis of key health data, and national and subnational coordination meetings.

with its partners through this mechanism, to plan for a scenario of increased conflict, as part of the Cluster's operational preparedness and response.

During the pandemic, coordination also entailed assessing COVID-19's impact in the conflict zone, conducting rapid assessments of COVID-19 dedicated facilities and improving management to control the disease. As part of the response, WHO led a COVID-19 epidemiological projection for the eastern conflict areas in order to advise the Government of Ukraine on public health measures that could be taken in GCAs. WHO also conducted a rapid assessment of checkpoints along the contact line in eastern Ukraine, to understand what preventative measures had been maintained and what further action could be taken to slow the spread of the virus.

The Health Cluster also led resource mobilization for the health system in eastern Ukraine, responding to the most urgent humanitarian needs and priorities. WHO and its partners advocated to ensure the safety and security of humanitarian convoys delivering over US\$ 20 million worth of life-saving medical and hygiene items from GCAs into NGCAs in 2020. In 2021, six humanitarian convoys delivered equipment, reagents, consumables and PPE to more than 30 health-care facilities of Luhansk NGCA.



Information and planning

WHO supported efforts to strengthen health surveillance in eastern Ukraine and early warning systems for the systematic analysis and communication of health risks. WHO supported the development of an information management dashboard, coupled with data collection, for the Health Cluster, including emergency response activities across eastern Ukraine. The 5W dashboard (referring to Who, What, Where, When and for Whom) quickly displays data to better inform decision-makers on which organizations within the Cluster are supporting which facilities. A COVID-19 5W dashboard provides similar coordination information.

As well as contributing to the HRP, WHO regularly publishes Public Health Situation Analysis reports. More in-depth analyses on specific issues have also been provided by WHO; for example, an analysis of pre-hospital care in eastern Ukraine, including ambulances and other emergency medical services (EMS), was published in 2020 (25), which informed relevant reforms in PHC. The report demonstrated that the fundamental building blocks of pre-hospital care were present but required improvements. This included ensuring appropriate medical supplies and equipment for EMS, strengthening governance and accountability, and improving the coordination of services within and across the sector.

Emergency trauma care and mass casualty management

Upgrading the capabilities of first responders is essential for improving outcomes for those wounded or otherwise injured in a conflict setting. WHO contributed towards this goal by providing essential training and medical equipment to health-care workers in the conflict-affected areas, and developing contingency plans for the region.

Trainings were provided both in-person and online, reaching those in areas of conflict. In 2021, an online trauma care support training package was developed, targeting health-care workers in GCAs. The training covers the Emergency Care System Framework, spanning everything from the scene of the trauma to transport and hospital facilities. This training was later made available across all of Ukraine. Four webinars on trauma care were also delivered for staff in NGCAs.

On-site trainings were held where possible in both GCAs and NGCAs. For example, a training on basic emergency care was conducted in October 2021 for 20 health-care professionals in Luhansk. WHO facilitated trainings in advanced trauma care for more than 150 trauma care specialists, surgeons, emergency doctors and anaesthesiologists from Donetsk and Luhansk oblasts, who acquired essential theoretical and practical skills. This intervention increased access to quality trauma health-care services for the conflict-affected population. About 700 000 patients in GCAs of Donetsk and Luhansk benefitted from the medical supplies for trauma care delivered by WHO.

Infection prevention and control

In response to the combined challenges of the conflict, COVID-19 and maintaining essential health services, WHO assessed the IPC situation in health facilities in eastern Ukraine. An IPC needs assessment was conducted in 20 health-care facilities in Donetsk and Luhansk oblasts, and recommendations on IPC programme strengthening were provided to these facilities.

WHO provided additional training and webinars on the core components of IPC, rational use of PPE, strengthening hospital programmes and strategies, hand hygiene, and related topics. In 2020, 675 health-care workers in eastern Ukraine received training. Many health-care workers in NGCAs participated in medical trainings via WHO online training sessions in 2021, including 10 webinars delivered on IPC. Six webinars were also delivered to hospitals and mobile teams in GCAs. WHO also installed sterilization equipment in three hospitals, aimed at reducing the rate of in-hospital infections.

IPC-related SOPs were developed and disseminated to health-care facilities. In 2020, 16 such SOPs were developed and shared with six hospitals, reaching over 100 health-care workers in eastern Ukraine. Relevant SOPs covered the main IPC measures that should be implemented in hospitals during the COVID-19 pandemic.

WHO also supported the establishment of 25 hand hygiene stations in 20 GCA hospitals, and delivered sanitizing hand-rub and liquid soap and dispensers, and towel dispensers. During these visits, WHO conducted on-site trainings on hand hygiene implementation and monitoring for medical staff.

Mental health in conflict settings

The protracted conflict has negatively impacted the mental health of Ukrainians, especially those living closest to the contact line. The Mental Health and Psychosocial Support Technical Working Group (MHPSS TWG) was created in 2015 to coordinate an inter-agency response to MHPSS needs. Since 2020, the MHPSS TWG has specifically included responding to COVID-19 in its agenda.

MHPSS services are one of the most requested forms of assistance from conflict-affected people. The MHPSS TWG ensures adherence to best practice in mental health services and global inter-agency recommendations. By December 2021, some 50 national and international agencies were members of the group including United Nations agencies, representatives of agency clusters, national and international NGOs, ministries and national institutes. The group is chaired by WHO and the International Medical Corps (IMC) at the national level; and Doctors of the World and IMC at the divisional level in Donetsk and Luhansk oblasts.

During 2020–2021, the MHPSS TWG conducted 24 national coordination meetings, 23 local meetings and 11 workshops, to better respond to the MHPSS needs of

Ukrainians. The group administers a map showing information on MHPSS and gender-based violence services provided by its partners, both in the east and across the country.

WHO coordinates its MHPSS work in the region with the TWG, such as its webinar programme on MHPSS, which included three webinars delivered to health-care workers in NGCAs during 2021.

Responding to COVID-19 in conflict areas

With the onset of the COVID-19 crisis in conflict-affected areas, WHO acted quickly to ensure testing kits and PPE stocks were delivered to the areas, even though they were scarce in the country. During 2020, PCR tests and related supplies were

Facing COVID-19 in a conflict setting

Volnovakha Central District Hospital provides specialized medical care to more than 150 000 people.

“Volnovakha is located on the highway connecting Donetsk and Mariupol, the two largest cities in our province,” explained Larysa Belykova, a nurse-anaesthetist working in the hospital.

“In 2014, when the war started, we began to receive many patients for trauma care; there were servicemen and civilians wounded during fighting and shelling. Then, we also had many patients injured by landmine explosions. We were familiar with demanding work, but this added an unfamiliar psychological burden to it.”

In 2019, before the COVID-19 crisis, the hospital started having difficulties with its oxygen supply, which is essential for surgery and for intensive care units. WHO installed an oxygen generator to make sure there was no disruption to life-saving care. WHO also donated important equipment for washing and



disinfection of medical devices in the sterilization unit.

COVID-19 is “another kind of challenge,” said Larysa. “We have received masks, protective gowns and extensive instructions from the MoH. Every day, we’ve had training sessions, both for health workers and residents.”

Larysa said the oxygen generator received from WHO helped significantly, as ventilators were increasingly needed. “Having an oxygen generator now makes us more confident that we will be able to assist our patients.”

delivered to Luhansk and Donetsk NGCAs to increase the daily capacity to 200 PCR test per region.

Aware that the COVID-19 pandemic could inflame tensions in the area, WHO also acted to reinforce trust with local humanitarian actors. WHO launched a peace-building project to assist the peace process, with a specific focus on health system access, service delivery, COVID-19 demystification and health reform. It involved community-based dialogues, mediation and peace mapping. The project was implemented in Chernivtsi, Dnipropetrovsk, Donetsk, Luhansk and Odessa oblasts.

Also in 2020, WHO and the MoH jointly developed communication materials, posters and leaflets on prevention measures for COVID-19 and disseminated them among hard-to-reach and at-risk populations such as the elderly.

WHO supported laboratories throughout the pandemic, assisting technicians to upgrade their skills to perform PCR testing and core biosafety procedures, and training 12 rapid response teams. WHO developed two COVID-19 specific SOPs and delivered them to 20 laboratories in Luhansk and Donetsk. In 2021, further consumables were delivered to Luhansk EMS Centre to increase the number of PCR tests being carried out in that region. Trainings were delivered to 18 staff from laboratories in Luhansk and three from a mobile laboratory. Repair to the roof of the laboratory in the EMS Centre was begun and equipment for the laboratory procured. On-site training on how to perform PCR tests was also delivered to 20 mobile laboratory staff of Luhansk NGCA.

Oxygen supply is also a critical issue in conflict-affected areas. After an assessment of facilities conducted by WHO, 10 cryogenic oxygen tanks of 210, 1000 and 3000 litre capacities were procured and delivered to support five hospitals in Luhansk NGCA. Their installation significantly increased the life-saving supply of oxygen to patients with COVID-19 and pneumonias. More broadly across eastern Ukraine, WHO has supported equipping an improved centralized system for supplying medical oxygen to critical wards. Two hospitals were selected for this project, serving territories with populations of more than 180 000 people. In addition, six hospitals received 30 oxygen concentrators and four mechanical ventilation apparatuses; and 13 hospitals received oxygen masks, PPE, consumables and technical guidance.

Operational support and logistics

The humanitarian convoys delivering essential health supplies to eastern Ukraine in 2020–2021 were complex operations, involving liaising with authorities and humanitarian actors on both sides of the conflict. These types of operations are supported by WHO's Operational Support and Logistics team.

Logistical operations such as these are essential for servicing at-risk populations and their health-care professionals. For example, WHO provided surgical kits for emergency hospitals in Luhansk and Popasna in NGCAs, facilitating surgical interventions for some 3300 patients. When WHO provided 500 hand hygiene

stations and supplies for waste management to four hospitals in NGCAs, these reached over 300 health-care workers. WHO also supported hospitals throughout GCAs in 2020–2021, such as in Rubizhansk, where necessary supplies were delivered such as sanitizing hand-rub and soap dispensers, paper towel dispensers and elbow taps. These health products reached 20 health-care workers and an estimated 2000 patients.

2.4 Prevention, detection and response to outbreaks of infectious diseases

In 2020–2021, the COVID-19 pandemic highlighted the need for countries to prepare for the possibility of serious outbreaks of infectious diseases. Preparation work to prevent, detect and respond to such scenarios therefore makes up an important part of WHO's emergency response activities in Ukraine. This response framework involves a wide range of health professions working together.

Vaccines are the first line of defence against many infectious diseases that can develop into health emergencies. In 2020–2021, WHO's VPI programme contributed to Ukraine's COVID-19 vaccination drive, as well as work on delivering measles–mumps–rubella vaccine, diphtheria–tetanus–pertussis vaccine, and oral polio vaccine. WHO has also facilitated clear risk communication with the public to help increase vaccine uptake and improve coverage.

IPC measures, implemented in hospitals and other medical facilities, also help to prevent the spread of infectious diseases. In 2020–2021, WHO supported the implementation of IPC programmes both at the national and facility level. Technical support was provided to monitor adherence to IPC practices.

Equipping laboratories to detect cases is another essential component of preparedness work. WHO has contributed to Ukraine's capacity in this regard, not only through supplies of equipment, but through assessments of facilities and strategizing improvements to the system as a whole.

Linked to laboratories' capacity to detect cases are the epidemiological surveillance and data management systems used to detect and monitor the spread of infectious diseases. In November 2020, WHO and the UPHC conducted an assessment in selected ODCs. A capacity-building programme is also being implemented to strengthen influenza and other respiratory disease sentinel surveillance in Ukraine.

The collaboration and coordination between the public health, animal health and environmental sectors is another important component of preventing and detecting serious infectious diseases. This is due to the risk of animal-to-human infection of zoonotic diseases, as well as environmental factors affecting the spread of disease. WHO has supported the One Health approach in Ukraine through collaborative meetings between these sectors, including through the JEE on the IHR, completed in 2021. WHO also contributed to the development of an educational course for doctors on foodborne and vector-borne illnesses, and promoted international One Health Day in Ukraine.

Finally, the rapid treatment of cases is the next essential step, to which WHO has contributed in Ukraine by strengthening the health-care system with the requirements to treat specific infectious diseases. For example, WHO has increased oxygens supplies to hospitals during the COVID-19 pandemic.

These prevention, detection and response measures have saved lives in Ukraine over the past two years. As well as the COVID-19 pandemic in 2020–2021, Ukraine has experienced several outbreaks of serious infectious disease. These were met with interventions by the authorities and WHO to stop the spread of these diseases.

In October 2021, an outbreak of cVDPV2 poliovirus, occurred, starting in Rivne Oblast. WHO responded to this outbreak with partners working through the GPEI. Measles cases also continued to occur in 2021, as well as cases of botulism, a food-borne disease. The best-case scenario in these instances is that detection mechanisms lead to a quick response to stop the spread of the infectious disease before a large-scale epidemic can occur.

In Ukraine in October of 2021, one case of anthrax, a disease caused by bacteria and occurring commonly in animals, was detected in a pony in a zoo in Ternopil Oblast in western Ukraine. The Country Office notified the Regional Office and followed up on this situation with the Ukrainian health authorities. However, due to effective detection mechanisms in place for zoonotic diseases, the one case was able to be isolated, preventing the spread from the animal to humans. Nine contact people were placed under medical supervision. No symptoms were reported, and the threat was quickly isolated.



3. Promoting healthier populations





As outlined in WHO's GPW 13, promoting healthier populations is a strategic priority guiding the Organization's work. This requires action across social, environmental and economic determinants of health and disease. The goal is for people to live healthier, longer lives, while enjoying higher levels of well-being.

In 2020–2021, WHO focused its support for promoting healthier populations in Ukraine on addressing NCD risk factors, tackling antimicrobial resistance (AMR) and improving IPC.

3.1 Addressing NCD risk factors

Reducing the major risk factors for NCDs is an essential and cost-effective path toward achieving SDG 3: to ensure healthy lives and promote well-being for all at all ages.

WHO supported Ukraine in conducting its first ever nationwide STEPwise surveillance survey on the main risk factors for NCDs in 2019 (26). The results, released in 2020, revealed a very high prevalence of risks. These included high tobacco, alcohol and salt consumption, as well as low fruit and vegetable intake. Obesity was reported to be a widespread problem.

The prevention and control of NCDs was already high on the national health agenda when the COVID-19 pandemic hit in 2020. Combating NCD risk factors then became even more urgent, as people remained at home, isolated from loved ones, and with their daily routines disrupted. This new context posed risks to fitness, healthy habits and mental health.

In 2020–2021, WHO worked with the MoH, especially the UPHC, among other partners, to reduce the burden of NCD risk factors among Ukrainians. This work focused on surveillance of risk factors, raising awareness of the risks, and facilitating policy development and implementation.

Surveillance of NCD risk factors

WHO supported the surveillance of NCD risk factors in a number of ways:

- **In 2020, WHO released a gender analysis of STEPwise survey data (27)**, which allowed policy-makers to better identify the specific needs of women and men in combating NCD risk factors. This report was part of a regional initiative launched by the Regional Office.
- **In 2021, the third round of the WHO Global Adult Tobacco Survey (GATS) in Ukraine was launched.** GATS is a nationally representative household survey of adults aged 15 years and over. It enhances the capacity of countries to design, implement and evaluate tobacco control interventions.
- **In 2021, WHO provided technical assistance, trained and worked with partners to launch the European Childhood Obesity Surveillance Initiative (or COSI) in Ukraine.** A strength of COSI is that it is widely used in the European Region, thereby providing comparable data that is replicable.

Raising awareness of NCD risk factors

With the aim of raising awareness on NCD risk factors, WHO supported the following initiatives:

- **In November–December 2020, WHO supported the MoH in developing and launching the social media campaign “Healthy habits”.** This campaign promoted physical activity, a healthy diet and good mental health care, as well as reduced tobacco and alcohol consumption. It especially emphasized the ways in which people could protect their health while staying at home due to COVID-19. More than 3.1 million people were reached through targeted posts on social media platforms, with more than 200 000 people actively engaging with the online content.
- **In March 2021, WHO prepared special videos featuring young people, public figures, experts and advocates, explaining milestones of the tobacco control movement in Ukraine.** The videos advocated non-smoking among young people, promoted the international WHO Framework Convention on Tobacco Control (WHO FCTC) agenda and strengthened political commitment towards tobacco control in Ukraine.
- **In 2021, at the request of the MoH, WHO adapted three videos on healthy nutrition in schools to the Ukrainian language** to support communication efforts and national reform in this area. In cooperation with the MoH and UPHC, five posters to promote a healthy diet were created.
- **In 2021, WHO prepared four detailed STEPS fact sheets on the main NCD risk factors** (tobacco, alcohol, poor nutrition and lack of physical activity) to be disseminated among target groups and at events.

Spotlight on healthy behaviours

Health can be adversely affected by social, behavioural and cultural factors, often insufficiently taken into account in policy design. These factors include poor health literacy, conflicting belief systems, fear, mistrust, misunderstood information, and experiences of disrespect or discrimination. The Regional Office’s flagship initiative “Healthier Behaviours: incorporating behavioural and cultural insights” aims to build a culture of health that enables everyone to make healthier choices, in their daily lives and in the ways in which they use health services. By engaging in the social sciences, beyond the bio-medical sphere, this initiative helps health authorities to improve how health services respond to their citizens’ social and cultural needs. The programme provides a compendium of good practices and resources on behavioural and cultural factors that affect health. In Ukraine, the Country Office participated in the Commit to Quit communication campaign under the “Healthier behaviours” initiative.

Policy dialogue, development and implementation

WHO supported various initiatives on NCD policy dialogue, development and implementation in 2020–2021:

- **WHO's support during 2020–2021 helped to pass a new, comprehensive tobacco control bill in Ukraine.** WHO and a wide range of partners carried out lengthy policy and advocacy work on tobacco control. In 2020, WHO published a situation report on tobacco control in Ukraine (10), and a policy note on the tobacco excise tax (11). In partnership with the international Campaign for Tobacco-Free Kids and Ukraine's "Life" Advocacy Centre, WHO offered MoH officials and Health Committee members the opportunity to join a high-level study visit to Brussels. The new bill, passed in late 2021, imposes strict regulations on novel tobacco products, among other provisions, marking a significant step towards implementing the WHO FCTC.
- **In 2021, WHO supported the MoH and other stakeholders to promote trans fats elimination policies.** In cooperation with the Parliamentary Committee on Agrarian and Land Policy, WHO conducted a policy dialogue on existing legislative initiatives in this area. A comprehensive pack of documents was produced for the event, in both Ukrainian and English, based on the WHO REPLACE action programme for the elimination of industrially produced trans fats from national food supplies.
- **In August 2020, the Government of Ukraine adopted a National Action Plan on School Nutrition Reform, reinforced by a decree in March 2021.** In 2021, WHO organized a two-day online workshop, bringing together a wide range of international experts and Ukrainian authorities responsible for school nutrition programmes and their reform.

3.2 Antimicrobial resistance and infection prevention and control

AMR is a serious threat to global health. It occurs when microorganisms change and become resistant to antimicrobial drugs. In May 2015, the World Health Assembly endorsed a global action plan on AMR and urged all Member States to develop national action plans.

In 2019, the Cabinet of Ministers of Ukraine approved the National Antimicrobial Resistance Action Plan in response to the spread of AMR. During 2020–2021, WHO provided technical assistance to the national expert working group on AMR and IPC, and supported the drafting of a new national action plan for 2022–2023.

The main challenges facing Ukraine in the fight against AMR are controlling the release of antibiotics in pharmacies, preventing infection and transmission of



resistant pathogens in health-care facilities, and limiting antibiotics in agriculture and veterinary medicine. The COVID-19 pandemic also impacted on the management of AMR; many routine AMR surveillance clinical practices were interrupted as laboratories and resources were allocated to the emergency response.

During 2020–2021, most actions outlined in the National Action Plan were achieved, including approval of AMR surveillance procedures and requirements for IPC, implementing stewardship programmes for antimicrobials at facility level and the introduction of electronic prescriptions.

WHO provided technical assistance for implementation of AMR and IPC measures across all five priority areas identified by the World Health Assembly's Global Action Plan on Antimicrobial Resistance (28), namely: improving awareness, strengthening surveillance, improving IPC, optimization of antimicrobial use, and ensuring sustainable investments in these areas.

In 2020–2021, specific actions on AMR and IPC included:

- **WHO conducted a comprehensive assessment of the bacteriological laboratory network and developed a road map for AMR surveillance strengthening in Ukraine.** WHO supported updating of the UPHC website to allow for online submission of AMR-related data, alongside a range of other measures to improve AMR surveillance. Trainings were delivered on the use of European Committee on Antimicrobial Susceptibility Testing (EUCAST) methodological practices and internal quality management for 50 bacteriological laboratories. Support was provided to the national bacteriological laboratory, including assistance to develop SOPs, providing reference strains for quality control, and developing video training on WHONET software for the management and analysis of microbiology laboratory data.
- **WHO supported the implementation of IPC programmes both at the national and facility level.** An assessment of the national IPC programme was conducted and a map of existing IPC legislation developed. Technical

support was provided to monitor adherence to IPC practices. National surveys were conducted on the prevention of surgical site infections, device-associated infections and IPC practices in blood and organ transplant services.

- **WHO conducted three online and one off-line trainings on IPC and the reprocessing of medical equipment, with more than 1000 participants.** More than 50 webinars on various aspects of IPC were conducted for health-care providers. WHO also supported the establishment of more than 2000 hand-hygiene stations, the improvement of central sterilization units and the reprocessing of endoscopes in five hospitals. More than 80 technical support and monitoring visits were conducted to hospitals to improve IPC practices.
- **In collaboration with medical universities, WHO developed two post-graduate trainings on rational antimicrobial use** and the implementation of antimicrobial stewardship programmes. Two online trainings on IPC and the reprocessing of medical devices were also developed.
- **In 2021, WHO supported a pilot point prevalence survey on health-care associated infections and antimicrobial use.**

AWaRe: sharing a tool to drive positive change in AMR in Ukraine

Doctors and pharmacists can contribute to reducing or even reversing AMR by using antibiotics more responsibly. But how can they do that and still ensure that patients are treated effectively? As part of the efforts to raise awareness on antimicrobial consumption in Ukraine, WHO conducted a digital communication campaign in 2020 among health-care workers on their essential role in decreasing unnecessary antibiotic use, promoting AWaRe (standing for Access, Watch, Reserve). AWaRe is a tool that helps medical professionals decide which antibiotics are best to use and when. The overall goal is to reduce the use of Watch and Reserve



group antibiotics – those most crucial for human medicine, and at higher risk of resistance – and to preference the use of Access antibiotics. This is to ensure equitable access to those in need of antibiotic treatments.

3.3 Key numbers: Promoting healthier populations

2020



More than **3.1 million people** were reached in a social media campaign focused on promoting physical activity, a healthy diet, mental health care and reduced tobacco and alcohol consumption.



Five key partners collaborated to publish Ukraine's first STEPwise survey on surveillance of NCD risk factors: WHO, the MoH, the UPHC and the Oleksandr Yaremenko Ukrainian Institute for Social Research, with support from the World Bank.



The first comprehensive, country-level gender analysis of WHO STEPwise survey data was conducted to better understand the specific needs of men and women.



Five hospitals participated in a study on health-care-associated infections and antimicrobial consumption.



Two thousand people participated in a series of webinars and video lectures aimed at educating health-care workers and the general public on the rational use of antibiotics and its benefits for everyone.

2021



Thirty field workers and representatives from partner organizations were trained in COSI implementation, data collection and processing, and anthropometric measurement, by WHO experts in a practical, two-day, face-to-face training.



Forty-five staff members of the State Service of Ukraine for Food Safety and Consumer Protection and seven representatives of the MoH, UPHC and NGOs participated in the online training "Tobacco control in Ukraine: achieving better compliance", run by WHO and Improving Performance in Practice.



Fifty bacteriological laboratories participated in trainings on EUCAST methodological practices and internal quality management.



Fifty laboratories were reporting AMR data to the Central Asian and European Surveillance of Antimicrobial Resistance network (CAESAR) as of December 2021, up from 10 in January 2021.



As of 2021, **two post-graduate trainings** on antimicrobial stewardship were established, making up an essential part of hospital training programmes.

4. Achieving the SDGs

WHO country offices play a key role in working towards the achievement of the health-related SDGs and the overall 2030 Agenda. WHO aims to achieve SDG 3 “to ensure healthy lives and promote well-being for all at all ages”, as well as addressing core health issues in other SDGs. With the COVID-19 pandemic and a range of other health challenges, WHO’s cooperation with governments and partners at the country level has become more relevant than ever. To assist the Government of Ukraine in progressing towards SDG 3, the Country Office supported a range of specific, SDG-focussed initiatives. For example, the Country Office coordinated partners around the SDGs by convening interagency meetings on good health and well-being, in line with the Global Action Plan for Healthy Lives and Well-being for All.



In 2020, WHO launched a comprehensive report, *Towards a healthier Ukraine: Progress on the health-related Sustainable Development Goals (5)*. This report improved evidence-based decision-making in health and raised awareness of the health-related SDGs within Ukrainian policy forums.

WHO has also supported the government’s efforts around SDG reporting, has advocated for the health agenda in governmental priorities, and has provided leadership and technical guidance on understanding the health-related SDGs. WHO also contributed to Ukraine’s Voluntary National Review of SDG achievements. In addition, the Organization has supported awareness-raising activities to promote SDG 3, conducting numerous webinars and courses, including with the State Statics Service.

5. The Country Office in 2020–2021

The Country Office finished the biennium looking considerably different than at the start of 2020. The Office had grown to a team of over 100 professionals working in a range of technical areas, to meet the challenges of COVID-19 and ensure that progress continued on WHO's critical areas of engagement. These are: achieving UHC, addressing health emergencies and promoting healthier populations.

The Country Office is headed by WHO Representative Dr Jarno Habicht, who is responsible for overseeing WHO operations in Ukraine, working closely with Dr Hans Henri P. Kluge, WHO Regional Director for Europe and Dr Tedros Adhanom Ghebreyesus, WHO Director-General. The Country Office worked in all oblasts of Ukraine during 2020–2021, with offices in six locations. The main office is located in Kyiv.

The Country Office is staffed with professionals working in the national context, the majority of whom are Ukrainian, bringing together a diverse range of expertise. It is supported by experts from WHO's Regional Office located in Copenhagen, and headquarters in Geneva. WHO's international staff regularly undertake missions to Ukraine in response to health needs. These visits have continued despite the COVID pandemic. In 2020–2021, Ukraine received a high-level visit from Dr Kluge, as well as from directors specializing in a range of fields: Dr Natasha Azzopardi-Muscat, Director of Country Health Policies and Systems; Dr Gundo Weiler, Director of Country Support, Emergency Preparedness and Response; and David Allen, Director of Business Operations.

In 2020, the Country Office added a new structural component to its operations, the COVID-19 Response, to which all team members contributed. This was added to the seven areas of operation already in existence: Health Systems, Mental Health, Noncommunicable Diseases, Vaccine Preventable Diseases, Joint Infectious Diseases, Health Emergencies (including the Ukrainian Health Cluster) and Business Operations.

This report has detailed the medical, public health and governmental reform work supported by the Country Office within those thematic areas over 2020–2021. In addition, over the biennium, increased attention was paid to programme management, corporate communications and business operations, to support the entire office.

In 2020, the Country Office launched the Programme Management Unit to strengthen planning, monitoring and implementation across all programmatic areas. The unit works with technical and support teams to create a unified and strengthened approach to programme delivery. The Country Office also worked with the Division of Data, Analytics and Delivery for Impact in WHO headquarters to ensure that all activities strive towards the triple billion targets, backed by data-driven reviews that identify barriers and accelerate progress towards the health-related SDGs.

Another key challenge for the Country Office in 2020–2021 was increasing business operations. Much of the work brought about by COVID-19, including ensuring the continuation of WHO's existing critical health engagements in Ukraine, was implemented behind the scenes. All sections within WHO needed to adapt and scale up systems to meet new demand levels. The Business Operations team was vital to ensuring that adequate processes and systems were in place to meet the needs of a growing country team. This ensured that procurement, human resources, finance and information technology systems were in place and fit for purpose.

The Country Office changed with the COVID-19 pandemic, as the situation evolved. The Office adapted its operations by shifting to online meetings, working from alternative locations where possible and implementing social distancing measures at work. The Business Operations team was critical to ensuring the success of these new processes, and to making sure office spaces were COVID-19 safe, as staff gradually returned to work. Staff worked partially from the office and at intervals from alternative locations, between COVID-19 waves, as the pandemic evolved.

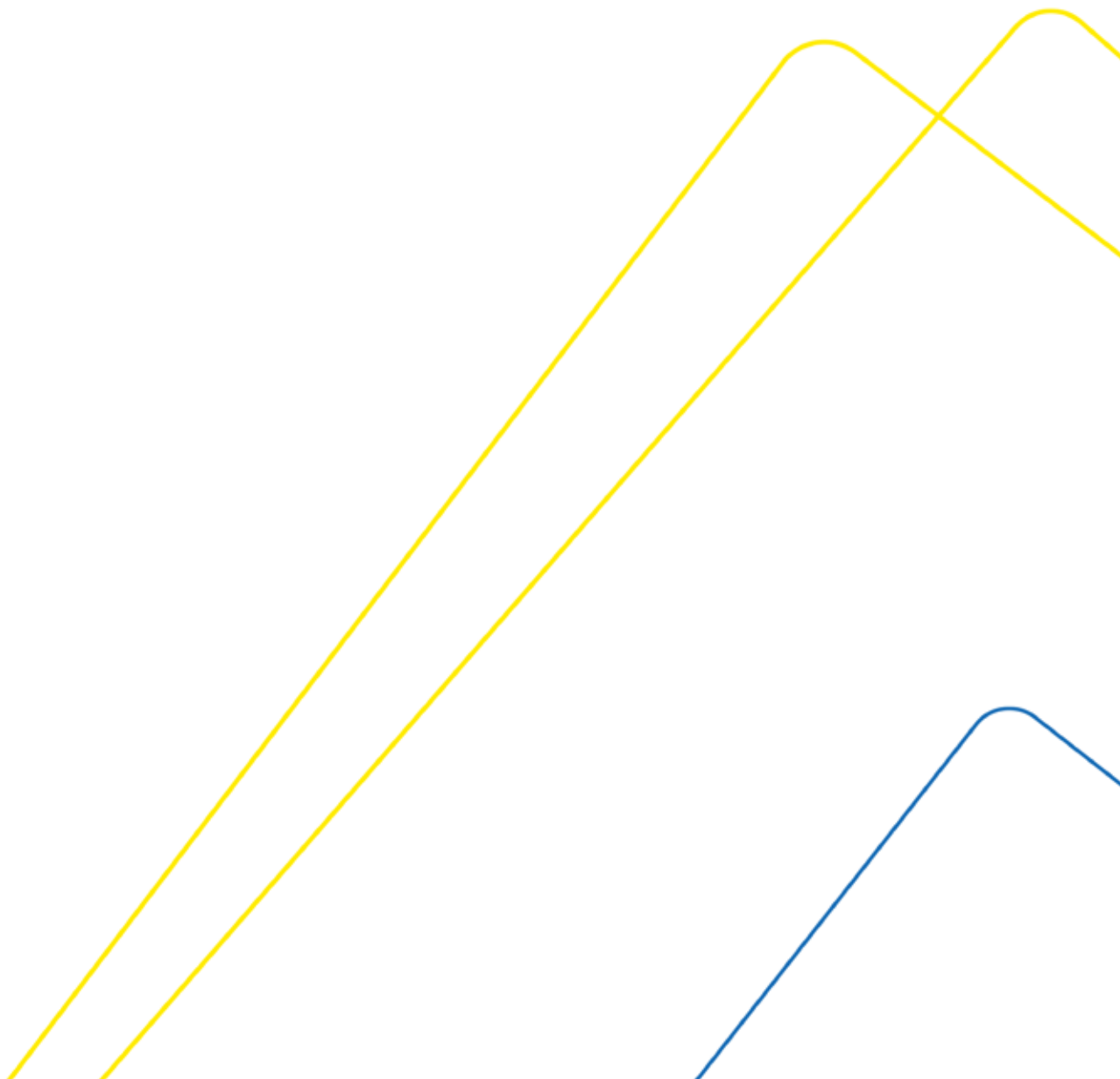
Staff well-being was also a key area of focus during this period. Country Office staff had to adapt to new working arrangements, working from home for extended periods of time, and extensive use of communication technologies. Staff from the Country Office participated in virtual workshops on psychological well-being, offered by the Regional Office, while working in this new context.

The Country Office team also gathered virtually to participate in three team retreats in 2020, and two team workshops in 2021, during the COVID-19 pandemic. These events allowed staff to connect with colleagues at a time of social restrictions. They also provided an opportunity to ensure that WHO's values were turned into everyday action at the Country Office, in terms of professionalism, collaboration, integrity and care.

Two in-person retreats followed in July and December 2021. The July retreat placed a special emphasis on team-building skills, with collaborative exercises undertaken throughout the day. The end-of-biennium retreat allowed for a stocktake of achievements and ongoing challenges, with staff presenting their work to colleagues, encouraging synergies to develop between teams, while looking forward to 2022.

Some changes implemented during COVID-19 have opened new possibilities for improvements in work-life balance and well-being, and have made the Country Office more adaptable and agile. Improved use of technologies allows for flexible work arrangements and surmounts distances. Like many organizations to come through the pandemic, the Country Office will continue exploring adaptations made during this time, deciding which should be retained and which can be discarded for a healthier work environment.

The Country Office team would like to thank our partners and donors, including the Government of Ukraine, and in particular our colleagues in the Ministry of Health, as well as in many other state agencies. We would also like to express our appreciation to those colleagues working within the United Nations family of organizations active in Ukraine. Special thanks also goes to the Country Office's organizational partners at the grassroots level and to Ukraine's health workforce, without whom our work over the biennium would not have been possible.



6. Looking forward



This report has summarized the achievements of the Country Office during 2020–2021. These two years will go down in history as a time that changed the world, transforming how we think about health and society. In Ukraine, the COVID-19 pandemic presented serious challenges, coming at a time of health reform and reorientation for health services across the country. As evidenced by this report, over the biennium WHO contributed to both the COVID-19 response and the Organization’s core mandate in Ukraine: moving towards UHC, protecting against

health emergencies, and promoting health and well-being. In January 2022, WHO and the Government of Ukraine continued on this collaborative path by signing the Biennial Collaborative Agreement for 2022–2023 (30).

Today, Ukraine finds itself in very different, very difficult and unprecedented circumstances. The Russian Federation's military encirclement in late 2021 was followed by the invasion of Ukraine on 24 February 2022. WHO's emergency preparedness work in trauma care and other essential health services began much earlier. These preparedness activities intensified in late 2021, including briefings to health authorities, visits to areas likely to be affected by the conflict and pre-positioning of trauma kits. In January 2022, WHO's earlier grading of the conflict in eastern Ukraine as a grade two emergency (according to WHO's Emergency Response Framework) was revisited. On 24 February 2022, WHO immediately reassessed and upgraded the conflict to the third and highest level. Since that time, WHO's response to this political and humanitarian crisis has been part of a coordinated effort with partners to provide emergency relief. Due to WHO's experience in the country, it is one of the United Nations agencies that has delivered medical supplies across the country.

The situation in Ukraine is the most difficult any citizen could face. War is especially hazardous for the sick and immobile, and their carers. These groups cannot easily avail themselves of opportunities to move into safer areas. The Country Office will support the people of Ukraine to stay as safe and healthy as possible while hostilities last (31). WHO's dynamic team of health professionals is working today from both inside and outside of Ukraine, to provide emergency relief and monitor the situation as it evolves (32). It is essential, however, that peace in Ukraine is restored, so that health services can function properly, to save more lives. This report serves as a reminder of progress made in improving health services in Ukraine in recent years, and points towards where recovery can begin.

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