Eastern Ukraine
Donetska & Luhanska oblasts
GCA

Last update:
21 January 2022

Public Health Situation Analysis

(PHSA) – Long-form

EXTERNAL VERSION

Typologies of emergency	Main health threats	WHO grade	Security level	INFORM risk (rank)
	COVID-19 NCDs Vaccine preventable diseases TB/HIV	Protracted 2	4 (Substantial)	4.5/10 (61) 2022

DISCLAMER:

This report was prepared by Health Cluster Ukraine and is subject to regular updates based on changes in the situation and availability of public data. It should, therefore, be treated as a living document.

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In places where data specific to the conflict-affected areas are not available, national data are used; however, these should be interpreted with caution due to the differing circumstances prevailing in the affected oblasts.

Executive Summary

After almost eight years of conflict, there are an estimated 2.9 million people in need of humanitarian assistance and protection, of which 1.52 million are considered in need of humanitarian health care.[1] The public health situation in the government-controlled areas (GCA) of Donetska and Luhanska oblasts is tenuous, and has only been exacerbated by the COVID-19 pandemic.

This analysis has identified the priority health threats to the conflict-affected population based on the current situation and their expected evolution over the next 12 months. Across Ukraine, COVID-19 is currently the highest priority health threat. With cases and deaths continuing to mount amid low vaccination rates, the health care system is struggling to cope, prompting more strict public health and social measures (PHSM).[2] The situation is not expected to improve until most of the population is vaccinated. The recently reported case of polio in the western part of the country highlights the threat of vaccine preventable diseases.[3] Despite childhood vaccination coverage reportedly being close to WHO targets in 2020,[4] disruptions to immunization programmes due to insecurity and the pandemic place the population in Donetska and Luhanska oblasts, especially children, at risk.[5] COVID-19-related restrictions have also impacted TB and HIV programmes, evidenced by lower case-reporting, potentially delaying treatment of unreported infections and risking further disease transmission in regions known to have higher TB and HIV/AIDS death rates than the national average.[6,7] Non-communicable diseases (NCDs), such as cardiovascular disease, are the leading cause of death in the conflict-affected oblasts.[8] Reduced access to health care and medicines due to hostilities and the pandemic is likely to increase the burden of NCDs.[9] Mental health and psychosocial support needs of the conflict-affected population are intensifying as a result of the significant distress and indirect socio-economic effects caused by the COVID-19 pandemic.[10]

Vulnerable groups in the conflict-affected regions are disproportionately impacted by health threats and barriers to accessing health care. Of particular concern in Donetska and Luhanska oblasts are the elderly. It is estimated that 31% of the people in need of humanitarian health care assistance are 60 years and older – the highest proportion of elderly people in need among humanitarian settings in the world.[11] Other vulnerable groups identified in this analysis are people with disabilities (PwD), children and youth, women and girls, victims of human trafficking, people in isolated settlements, health care workers, and internally displaced people (IDPs). Each of these groups has distinctive humanitarian health care needs which demand attention.

Many of the social determinants of health, such as water, sanitation and hygiene (WASH), food security, shelter, security, restriction of movement, continue to be impacted by the conflict and

[1] OCHA, Ukraine Humanitarian Needs Overview, 2022 (in press).
[2] WHO, Ukraine Coronavirus disease, accessed October 2021.
[3] WHO Euro, One case of polio detected in Ukraine, 13 October 2021.
[4] Ukraine Ministry of Health, Implementation of vaccination volumes in 2020 according to the UKRVAC database, 1 January 2021.
[5] OCHA, Ukraine Humanitarian Snapshot, 20 July 2020.
[6] Ukraine Public Health Center, TB Statistics, accessed October 2021; WHO, Global Tuberculosis Report 2021, 14 October 2021.
[7] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.
[8] State Statistics Service of Ukraine, Databank, accessed October 2021.
[9] WHO, Steps Prevalence of Noncommunicable disease risk factors in Ukraine 2019, 2020.
[10] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[11] OCHA, Ukraine Humanitarian Needs Overview, 2022 (in press).

exacerbated by the COVID-19 pandemic. Having an understanding of the status of these determinants gives context to the health issues faced by the conflict population and can help inform intervention planning.

The needs of the health system are highlighted by describing the disruptions experienced by key health system components and the predicted impact of these disruptions over the next 12 months. The assessed areas include access to health care, health care management, health care financing, service delivery of non-state providers, supply chains, alert and response systems, health workforce, health facilities, and attacks against health.

To address the needs of the conflict-affected population and the health system, Health Cluster Ukraine serves as a link between the 69 partners engaged in humanitarian health activities in Ukraine to better coordinate the response. The Health Cluster gathers and shares information to guide partners' response planning. This PHSA is one of the resources developed by the Health Cluster secretariat to promote a common understanding of the public health situation in the GCA of Donetska and Luhanska oblasts.

Acronyms and abbreviations

ART	antiretroviral therapy
CVD	cardiovascular disease
DOT	directly observed therapy
DR-TB	drug-resistant tuberculosis
ECA	eastern conflict area
EECP	entry/exit crossing point
ERW	explosive remnants of war
FAO	Food and Agriculture Organisation
GBV	gender-based violence
GCA	government-controlled area
HeRAMS	health resources availability monitoring system
HIV	human immunodeficiency virus
IDP	Internally displaced person
IPC	Infection prevention and control
LoC	line of contact
MDT	multi-disciplinary team
MHPSS	mental health and psychosocial support
MICS	multiple indicator cluster survey
MoH	Ministry of Health
MSNA	multi-sector needs assessment
NCD	non-communicable disease
NFI	non-food item
NGCA	non-government-controlled area
NGO	non-governmental organization
OCHA	Office for the Coordination of Humanitarian Affairs
OHCHR	United Nations Office of the High Commissioner for Human Rights
OSCE	Organization for Security and Co-operation in Europe
PHSA	public health situation analysis
PLHIV	people living with HIV
Polio	poliomyelitis
PPE	personal protective equipment
PTSD	post-traumatic stress disorder
PwD	people with disabilities
SMM	Special Monitoring Mission to Ukraine
SSS	State Statistics Service
STI	sexually transmitted infection
TB	tuberculosis
UNFPA	United Nations Population Fund
UNHCR	Office of the United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
WASH	Water, sanitation and hygiene
WHO	World Health Organization

Table of Contents

Preface

Public health threats represent a significant challenge to those providing health-care services in a crisis. The health issues and risk factors addressed in this document have been selected, through secondary data review, on the basis of the known burden of disease in this context, crisis-emergent health issues, and their potential impact on morbidity, mortality, response and recovery. It is hoped that this PHSA will facilitate the coordination of activities among all agencies working with the populations affected by the crisis. The document contains a short summary of the crisis, health status of and threats to the affected population, health system needs, humanitarian health response, and information gaps. This document presents the best available data at the time of publication, and may be updated, as needed.

1. Summary of the crisis

Key features

Location (country, region):	Donetska and Luhanska Oblasts, Eastern Ukraine (Eastern Europe)
Start date of crisis:	February/March 2014
Typology:	Conflict, Displacement, Insecurity
Brief description of event:	For almost eight years, the conflict in Eastern Ukraine has continued to cause significant loss of life, human suffering, large-scale population displacement and widespread damage to infrastructure. The heaviest fighting has occurred in the easternmost oblasts (regions) bordering the Russian Federation, primarily Donetska and Luhanska, but neighbouring oblasts have also been affected by a large influx of IDPs.[12] More than 13 000 people have been killed since the start of the conflict and 854 000 people remain internally displaced[13],[14] There are an estimated 2.9 million people in need of humanitarian assistance and protection, of which 1.52 million are considered in need of humanitarian health care. Elderly people constitute 31% of those in need of health support[15] – the highest proportion of the elderly in a humanitarian crisis in the world.[16] Most of the elderly report having at least one chronic disease, limited mobility, and issues with access to health care and medicines. Non-communicable diseases are the leading cause of death in the region, and the prevalence of HIV and TB are among the highest in the country. Many conflict-affected people struggle with their mental health and require psychosocial support.[17] The health system suffers from insecurity due to the conflict, lack of maintenance of aging health facilities and medical equipment, shortages of medicines and medical supplies, understaffing, and disruptions to management due to government health care reform and decentralization.[18] The COVID-19 pandemic has only intensified the needs of those requiring assistance and highlighted the deficits of the health care system.
Operational constraints:	Active hostilities, political insecurity, and the presence of landmines and explosive remnants of war continue to impede humanitarian access. Of the population in need from the health sector, an estimated 841 000 are in government-controlled areas (GCA) and 679 000 are in areas controlled by armed non-state actors, collectively known as non-government-controlled areas (NGCA). The political separation of GCA and NGCA, divided by the 427 km-long 'Line of Contact' (LoC), has caused significant constraints to the movement of people and goods.[19] Along the LoC, there are seven entry exit checkpoints (EECPs), through which civilian and humanitarian access has been drastically reduced due to restrictions related to the COVID-19 pandemic.[20] Access to NGCA for the delivery of humanitarian assistance and for the movement of staff has been extremely limited since July 2015 when most aid agencies were asked to leave NGCA following the introduction of extensive bureaucratic restrictions for humanitarian operations.[21]

Humanitarian profile

2.9 million[22]

POPULATION IN NEED OF HUMANITARIAN ASSISTANCE

1.52 million[23]

POPULATION IN NEED OF HUMANITARIAN HEALTH CARE

14 000[24]

DEATHS (APPROX)

37 000[25]

INJURIES (APPROX)

854 000[26]

NUMBER OF IDPs

People in need of humanitarian health care

Fig. 1: Population in need of humanitarian health care by region (000's of Residents and IDPs)[27]

[12] USAID, Ukraine - Complex Emergency Fact Sheet #3 Fiscal Year (FY) 2021, 2 July 2021.
[13] OHCHR, Report on the Human Rights Situation in Ukraine 1 February - 31 July 2021, 23 September 2021.
[14] UNHCR, Update of the methodology and estimation of population figures of Internally Displaced Persons (IDPs) in Ukraine, November 2021.
[15] OCHA, Humanitarian Needs Overview and Response: Ukraine, November 2021.
[16] Médicos del Mundo, Impact of Health Reform on the Primary Healthcare Level in Conflict-Affected Areas of Donetsk and Luhansk Oblasts, June 2021.
[17] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[18] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[19] OCHA, Ukraine: 2020 Humanitarian Response Plan (HRP), June 2020.
[20] UNHCR, EECP Survey – 2020 Annual Report, May 2021.
[21] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[22] OCHA, Humanitarian Needs Overview and Response: Ukraine, November 2021.
[23] OCHA, Ukraine Humanitarian Needs Overview, 2022 (in press).
[24] OHCHR, Conflict-related civilian casualties in Ukraine, 12 January 2022.
[25] OHCHR, Conflict-related civilian casualties in Ukraine, 12 January 2022.
[26] UNHCR, Update of the methodology and estimation of population figures of Internally Displaced Persons (IDPs) in Ukraine, November 2021.
[27] OCHA, Ukraine Humanitarian Needs Overview, 2022 (in press).

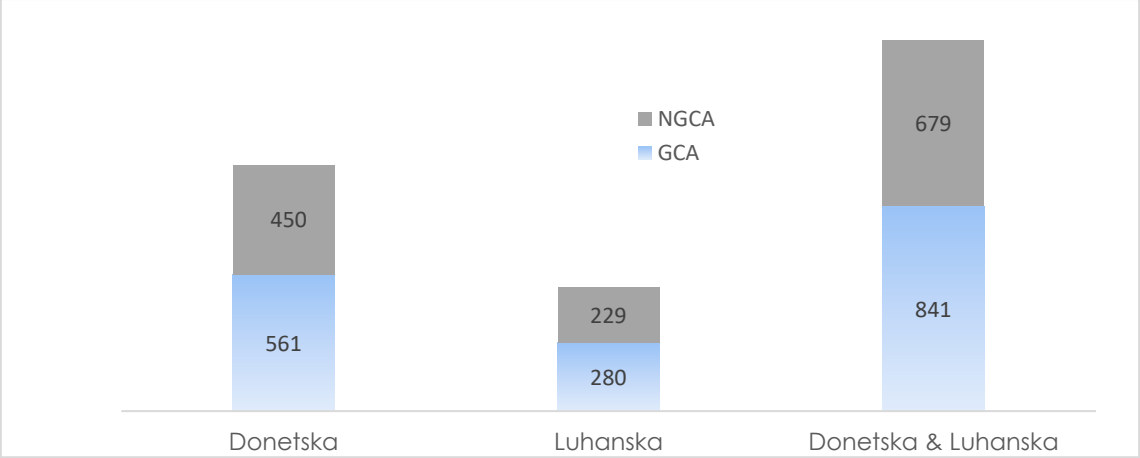
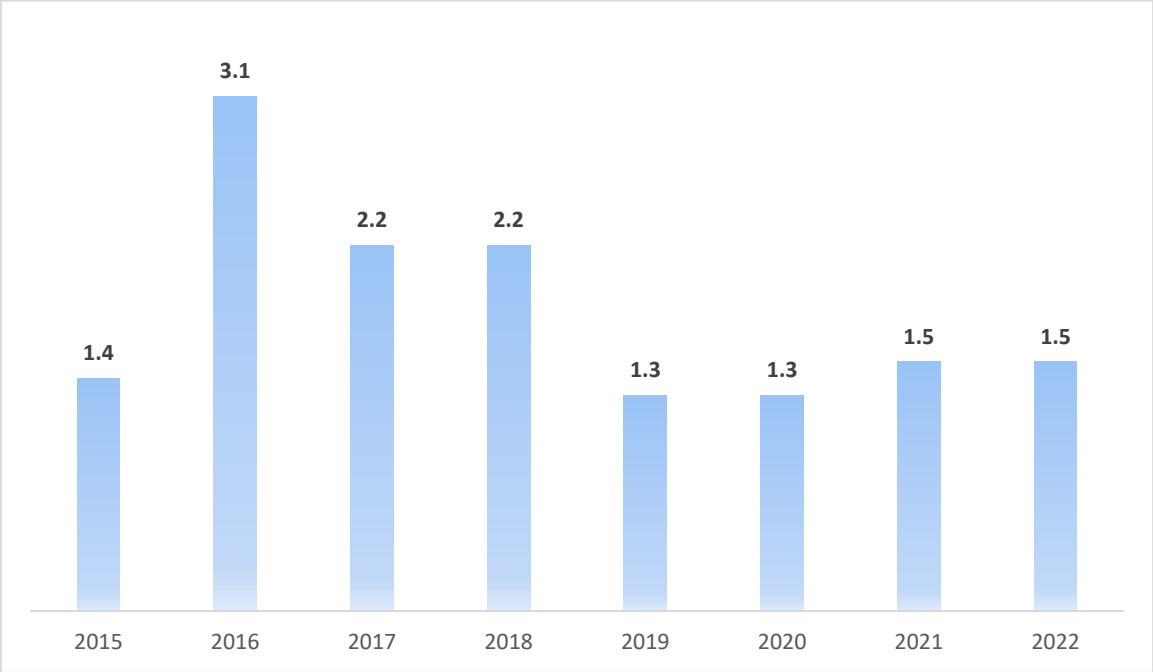


Fig. 2: Population in need of humanitarian health care by year (millions) [28]



2. Health status and threats

Population mortality

Life expectancy

In Ukraine, the average life expectancy at birth was 71.4 in 2020, however, it differs widely between women and men (76.2 for women and 66.4 for men).[29] By comparison, in 2015, the average life expectancy at birth for countries in the WHO European region was 77.8 (81.1 for women and 74.6 for men).[30]

Mortality rates

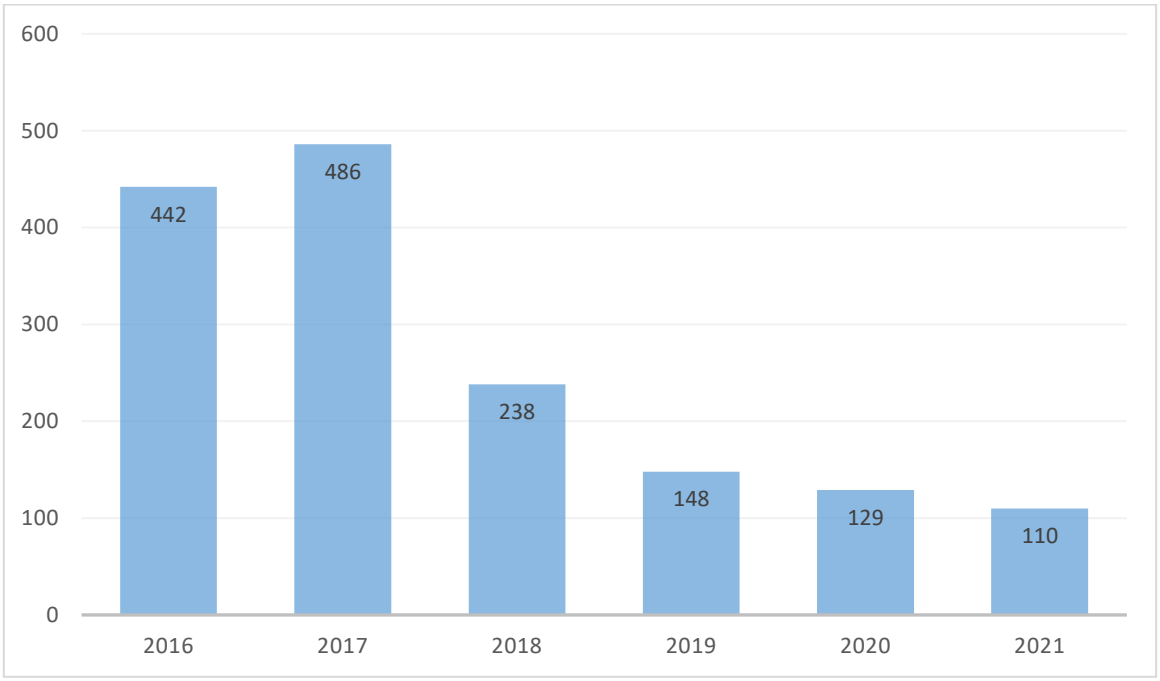
[28] OCHA, Humanitarian Needs Overview 2022, 2021, 2020, 2019, 2018, 2017, 2016, 2015.
[29] State Statistics Service of Ukraine, Databank, accessed October 2021. Note: life-expectancy estimates do not include data from Donetska and Luhanska oblasts.
[30] WHO EURO, European Health Information Gateway, accessed October 2021.

The national mortality rate (number of deaths per 1000 people) for 2020 was 16.2. In the conflict-affected oblasts, the reported rates were higher: 19.8 per 1000 people in Donetska oblast (GCA) and 22.5 per 1000 people in Luhanska oblast (GCA).[31] The under-5 mortality rate in Ukraine has been gradually decreasing from 20 deaths per 1000 live births in 1990 to eight deaths per 1000 live births in 2019.[32]

Conflict-related mortality

Since the start of the conflict in 2014, more than 14 000 people are estimated to have been killed, including 3106 civilian men, women and children. According to OHCHR, the number of civilian casualties was in 2021 was 110 – 25 fatalities and 85 injured. Most of the casualties were due to mine and unexploded ordnance (53%); active hostilities contributed to 40% of the casualties. Casualties decreased in 2021 by 26.2% compared to 2020 (149: 26 killed and 123 injured); 2021 saw the lowest annual number of civilian casualties for the entire conflict period. [33]

Fig. 3: Civilian Casualties 2016 – 2021 (000s)



Non-conflict-related mortality

NCDs are estimated to account for 91% of all deaths in Ukraine[34], with deaths from the five major NCDs (cardiovascular diseases, diabetes, cancers, chronic respiratory diseases and mental health conditions) making up almost 84%[35].

Table 1: 2020 Death rates for selected NCDs in Ukraine, Donetska (GCA) and Luhanska (GCA)[36]

[31] State Statistics Service of Ukraine, Databank, accessed October 2021. Note: Does not include NGCA.
[32] UNICEF, Country Profile: Ukraine, accessed October 2021.
[33] OHCHR, Conflict-related civilian casualties in Ukraine, 12 January 2022.
[34] Ukraine. In: Noncommunicable diseases (NCD) country profiles, 2018. Geneva: World Health Organization; 2018:209.
[35] Dumcheva A, Habicht J, Mikkelsen B, Farrington J, Mauer-Stender K, Bigot A *et al*. Tackling noncommunicable diseases in Ukraine 2015–2019. Copenhagen: WHO Regional Office for Europe; 2020.
[36] State Statistics Service of Ukraine, Databank, accessed October 2021.

	Ukraine	% of all deaths	Per 100 000	Donetska	Per 100 000	% of deaths in Donetska	Luhanska	Per 100 000	% of deaths in Luhanska
All deaths	616 835	100	1620	37 131	1977	6	15 113	2248	3
CVD	408 163	66	1072	24 335	1296	66	10 327	1536	68
Cancer	77 880	13	204	4812	256	13	1685	251	11
Diabetes	2122	<1	6	110	6	<1	67	10	<1
Mental health disorders	971	<1	3	40	2	<1	2	<1	<1

Death rates for HIV/AIDS are higher in Donetska than Ukraine overall, whereas they are lower in Luhanska. Death rates due to TB are higher in the two oblasts than for Ukraine (see below).

Table 2: Deaths caused by HIV and TB in 2020, State Statistics Service of Ukraine[37]

	Ukraine		Donetska (GCA)		Luhanska (GCA)	
	#	per 100 000	#	per 100 000	#	per 100 000
HIV	2949	7.7	191	10.2	45	6.7
TB	2927	7.7	195	10.4	117	17.4

COVID-19 mortality rates have been steadily increasing between June and October 2021.[38]

Table 3: COVID-19 mortality, as of 6 October 2021[39]

	Deaths	Case Fatality Rate %	Deaths per 100 000
Ukraine	57 526	2.3	151
Donetska (GCA)	2702	2.6	144
Luhanska (GCA)	1154	3.2	172

According to UNICEF statistics, the maternal mortality rate (MMR) in Ukraine remained stable at 33 deaths per 100 000 live births from 2000-2009, and thereafter decreased to 19 deaths per 100 000 live births in 2019.[40] The infant mortality rate (IMR) in Ukraine has been declining from 17 deaths per 1000 live births in 1996 to seven deaths per 1000 live births in 2019.[41] The under 5 mortality rate has been gradually decreasing from 20 deaths per 1000 live births in 1990 to eight deaths per 1000 live births in 2019.[42]

Vaccination coverage

Childhood vaccinations

Under the National Routine Immunization Calendar, children are protected against ten

[37] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.
[38] WHO EURO, COVID-19 situation in the WHO European Region, accessed 7 October 2021.
[39] National Security and Defense Council of Ukraine, Coronavirus epidemic monitoring system, accessed 7 October 2021.
[40] UNICEF, Country Profile: Ukraine, accessed October 2021.
[41] UNICEF, Country Profile: Ukraine, accessed 7 October 2021.
[42] UNICEF, UNICEF Data Warehouse, accessed 7 October 2021.

infectious diseases: pertussis, diphtheria, tetanus, measles, mumps, rubella, tuberculosis, haemophilia type b (HIB infection), hepatitis B and polio.[43]

While the regional facilities are provided with the required number of vaccines, the pace of vaccination in 2021 was slow. According to the Public Health Centre, by the end of the first half 2021, only 38% of 6-year-olds had been vaccinated against polio and 31.6%, against diphtheria and tetanus.[44]

Table 4: Estimates of National Ukraine immunization coverage provided by the WHO vaccine-preventable diseases monitoring system 2020[45]:

Vaccine	2017 %	2018 %	2019 %	2020 %
BCG (Tuberculosis)	84	90	84	93
DTP1 (Diphtheria, Tetanus, Pertussis - 1st dose)	65	87	92	93
DTP3 (Diphtheria, Tetanus, Pertussis - 3rd dose)	50	69	80	81
Pol3 (Polio - 3rd dose)	48	71	78	84
IPV1 (Inactivated Polio - 1st dose)	43	92	83	87
MCV1 (Measles - 1st dose)	86	91	93	85
MCV2 (Measles - 2nd dose)	84	90	92	82
HepB BD (Hepatitis B - birth dose)	49	60	60	69
HepB3 (Hepatitis B - 3rd dose)	52	67	76	81
Hib3 (Haemophilus influenzae type b - 3rd dose)	39	58	80	85
RCV1 (Rubella - 1st dose)	86	91	93	85

Despite the impact of the COVID-19 epidemic, only the vaccine coverage estimates for measles and rubella containing vaccine doses decreased from 2019 to 2020 (see table above). In August 2020, the Ministry of Health of Ukraine reported that a large number of children missed scheduled vaccinations due to the disruption of immunization programmes caused by the COVID-19 quarantine measures in the spring of 2020. Routine immunization efforts were scaled-up in late April 2020 to help maintain routine vaccination coverage and post-exposure prophylaxis.[46]

[43] UNICEF, Vaccination is a superpower against diseases. Make time to vaccinate children before the start of the school year!, 25 August 2021.
[44] UNICEF, Vaccination is a superpower against diseases. Make time to vaccinate children before the start of the school year!, 25 August 2021.
[45] WHO/UNICEF. Ukraine: WHO and UNICEF estimates of immunization coverage: 2020 revision, 8 July 2021.
[46] OCHA, Ukraine Humanitarian Snapshot, 20 July 2020.

Table 5: Administrative coverage* estimates for immunizations administered in 2020 for Ukraine, and Donetska and Luhanska oblasts (GCA)[47]

Vaccine	Ukraine %	Donetska %	Luhanska %	Target[48]** %
BCG (Tuberculosis)	89	85	76	>79
DTP1 (Diphtheria, Tetanus, Pertussis - 1st dose)	93			
DTP3 (Diphtheria, Tetanus, Pertussis - 3rd dose)	80	79	86	>79
Pol3 (Polio - 3rd dose)	83	87	92	>89
IPV1 (Inactivated Polio - 1st dose)				
MCV1 (Measles - 1st dose)	85	93	93	
MCV2 (Measles - 2nd dose)	82	87	93	>95
HepB BD (Hepatitis B - birth dose)	69	95	98	>90
HepB3 (Hepatitis B - 3rd dose)	81	82	90	
Hib3 (Haemophilus influenzae type b - 3rd dose)	84	74	95	>79
RCV1 (Rubella - 1st dose)	85	93	93	>79

*Administrative coverage: Reported by national authorities and based on aggregated administrative reports from health service providers on the number of vaccinations administered during a given period (numerator data) and reported target population data (denominator data). May be biased by inaccurate numerator and/or denominator data.[49]
**Coverage needed for a level of immunity sufficient to likely confer either herd (community) protection or a high level of individual protection.

For **COVID-19 vaccination coverage**, see the section on COVID-19.

[47] Ukraine Ministry of Health, Implementation of vaccination volumes in 2020 according to the UKRVAC database, 1 January 2021.
[48] WHO, Vaccination in Acute Humanitarian Emergencies, May 2017.
[49] WHO/UNICEF. Ukraine: WHO and UNICEF estimates of immunization coverage: 2020 revision, 8 July 2021.

Priority health threats in Eastern Conflict Areas (Donetska & Luhanska oblasts, GCA)

The matrices below summarise the current analysis of the magnitude (in terms of excess morbidity and mortality) of different health problems impacting the crisis-affected population, grouped into major disease types. Changes in the projected magnitude of these problems are also shown: these assume that the humanitarian health response (availability, coverage, quality) remains unchanged from its current status. **Matrix A covers expected physical health issues, and Matrix B covers acute psychological distress, chronic mental health problems, and psychosocial support problems.**

Matrix A: Magnitude[a] of expected physical health threats & their expected evolution over time[b]

Key health risks over coming 12 months				
Public health risk	**Level of risk**			**Rationale**
Months	**Dec-Jan**	**Feb-Apr**	**May-Nov**	
COVID-19				Slow vaccination uptake; new variants
Sexual & reproductive health				Disruption to access due to the COVID-19 pandemic
Child health				Disruption to access due to the COVID-19 pandemic
Waterborne diseases				Poor condition of water system
Hepatitis B & C				Poor surveillance
Influenza				Influenza season
Measles				Disruption to vaccination programmes due to the COVID-19 pandemic
Polio				Disruption to vaccination programmes due to the COVID-19 pandemic
TB				Disruption to programme by the COVID-19 pandemic
HIV				Disruption to programme by the COVID-19 pandemic
NCDs				Disruption to access due to pandemic
Technological and environmental health risks				Insufficient surveillance to estimate risk
Crisis-attributable injuries				Threat of escalating hostilities
Gender-based violence				Impact of pandemic on social conditions

[a] Red: **Very high risk**. Could result in high levels of excess mortality/morbidity.
Orange: **High risk.** Could result in considerable levels of excess mortality/morbidity.
Yellow: **Moderate risk.** Could make a minor contribution to excess mortality/morbidity.
Green: **Low risk.** Will very probably not result in any excess mortality/morbidity.
Grey: No plausible assessment can be made at this time.

[b] Changes in risk over time shows the expected progression after an acute onset emergency, or predicable seasonality of morbidity.

COVID-19 pandemic

Disease surveillance

According to the WHO Health Emergency COVID-19 Dashboard, from 3 January 2020 to 7 October 2021, there have been 2 497 643 confirmed cases of COVID-19 with 57 840 deaths in Ukraine. As of 7 October 2021, the crude case fatality rate was approximately 2.3%, just above the average for the WHO European region.[50]

Fig. 4: COVID-19 confirmed cases and deaths, as of 7 October 2021

The MOH launched a web-based dashboard in Ukrainian in June 2021 to allow visualization of COVID-19 data.

As of 28 September, the MOH reported that 82% of COVID-19 deaths in Ukraine were among individuals aged 60 and over.[51] Of this age group, approximately 20% were vaccinated, and among deaths, 98% of individuals were unvaccinated.[52]

As of 7 October, the number of COVID-19 cases and deaths continue to rise in Ukraine and GCA of Donetska and Luhanska. COVID-19 rates were generally lower in Donetska and Luhanska oblasts than those for Ukraine as a whole, with the exception of the death rate in Luhanska (see Table 6).

[50] WHO, Ukraine Coronavirus disease, accessed October 2021.
[51] Zavtra, Mandatory vaccination against COVID-19: the list of professions will be expanded, 29 September 2021.
[52] Narodna pravada, More than 80% of deaths from COVID-19 in Ukraine are people over 60 years old and without a vaccine, 29 September 2021; Ukrainian News, More than 80% of deaths from coronavirus in Ukraine are people over 60 years old, - Ministry of Health, 29 September 2021.

Table 6: Cases of COVID-19 in Ukraine, and Donetska and Luhanska oblasts, as of 7 October 2021[53]

	Ukraine		Donetska (GCA)		Luhanska (GCA)	
Cases	#	per 100 000	#	per 100 000	#	per 100 000
Confirmed	2 497 643	6558	105 749	5631	36 463	5423
Deaths	57 840	152	2715	145	1166	173
Recovered	2 277 762	5981	94 266	5019	28 937	4304
Active	162 041	425	8768	467	6360	946

Testing

The Ministry of Health of Ukraine reports, as of 7 October 2021, 13 058 358 SARS-CoV-2 tests have been performed. The testing rate is considered low compared to other European countries (31 399 per 100 000 population). Testing rates are approximately a two-thirds lower in the conflict-affected oblasts than for Ukraine as a whole see Table 7).

Table 7: SARS-CoV-2 testing rates in Ukraine, Donetska Oblast and Luhanska Oblast, as of 7 October 2021

	# tests	# tests per 100 000
Ukraine	13 058 358	31 399
Donetska (GCA)	459 451	11 205
Luhanska (GCA)	222 571	10 492

Vaccination

Vaccination roll-out in Ukraine has been slow. Vaccination against coronavirus in Ukraine began on 24 February, 2021. As of 7 October 2021, Ukraine had the third lowest rates of vaccine uptake in Europe, with 17.4% uptake of at least one dose and 13.9% uptake of a complete vaccine series. Rates were worse yet in Donetska (7.2% and 5.5%) and Luhanska (6.1 and 5.0%) oblasts.[54] The Ministry of Health[55] and the Office of the National Security and Defense Council of Ukraine[56] both maintain dashboards tracking vaccination coverage.

Table 8: COVID-19 vaccination coverage, as of 7 October 2021[57]

Region	Vaccinated at least one dose			Fully-Vaccinated		
	#	%	per 100 000	#	%	per 100 000
Ukraine	7 421 450	17.8	17 845	6 008 605	14.4	14 448
Donetska (GCA)	293 945	7.2	7168	223 487	5.5	5451
Luhanska (GCA)	129 765	6.1	6117	106 192	5.0	5006

[53] National Security and Defense Council of Ukraine, Coronavirus epidemic monitoring system, accessed 7 October 2021.
[54] WHO EURO, WHO/Europe COVID-19 vaccine programme monitor, accessed October 2021.
[55] Ukraine Ministry of Health, COVID-19 Immunisations, accessed October 2021.
[56] National Security and Defense Council of Ukraine, Coronavirus epidemic monitoring system, accessed 7 October 2021.
[57] WHO EURO, WHO/Europe COVID-19 vaccine programme monitor, accessed October 2021.

The health care workforce has not yet been fully-vaccinated: 567 029 (83.2%) had received one dose and 448 290 (65.8%) had received a complete vaccine series by 10 October 2021.[58] The MOH has indicated that it plans to release a list of professions for which vaccination will be mandatory.[59] On 27 September 2021, the country's National Immunization Technical panel recommended vaccinations for those aged 12 and older, however, the Ministry of Health continues to prioritize vaccination among individuals aged over 60.[60]

Vaccinations are voluntary and free. As of 7 October 2021, the following vaccines against COVID-19 are currently in use in Ukraine: Moderna – mRNA - 1273, AstraZeneca - Vaxzevria, Pfizer BioNTech - Comirnaty, and Sinovac - CoronaVac.[61] As of 7 October 2021, 13 mass vaccination centres have been set-up in Donetska oblast (GCA) and five in Luhanska oblast (GCA). Adults over the age of 18 can currently be vaccinated at mass vaccination centres.[62] Vaccination points (e.g., medical clinics), of which there are 195 in Donetska oblast and 55 in Luhanska oblast,[63] vaccinate people aged 60 and older and adults aged 18-59 with comorbidities. Mobile immunization teams are also available to vaccinate professional groups (doctors, educators, military, social workers, government officials, etc.), organized teams with more than 50 people, and low-mobility communities.

NGCA residents can be vaccinated at vaccination points in GCA, but the procedure for crossing the LoC limits access.[64] As of 20 August 2021, unvaccinated[1] people from NGCA are required to pre-register for vaccination at one of the vaccination centres by phone or through the websites of the MOH. An SMS with a unique identifier is sent to the person's mobile phone or email, which can then to be provided when crossing at a checkpoint. If a person does not have a unique identifier, after crossing a checkpoint, they must download a smartphone location tracking app and undergo self-quarantine. Self-quarantine can be terminated with a negative SARS-CoV-2 PCR or antigen test.[65] While there are some free-of-charge antigen tests (300 per day) available at entry/exit crossing point (EECP) "Stanytsia Luhanska", these cover only about 20% of the demand (1360 crossings per day on average from NGCA during August 2021), forcing the majority of people crossing to pay UAH650-800 (US$25-30) for the test or to self-quarantine for 14 days.[66] Individuals who have proof of the first dose of a WHO-approved vaccine are also exempted from self-isolation.[67]

According to news reports, about 10% of the population in NGCA have received at least one dose of Russia's Sputnik V vaccine or Sputnik Light, a single dose vaccine.[68]

Ukraine's vaccination rollout has been hindered by challenges on the demand side, with "anti-vax" disinformation spreading on social media and high vaccine distrust among the population

[58] WHO EURO, WHO/Europe COVID-19 vaccine programme monitor, accessed October 2021.
[59] Ukraine Inform, Mandatory COVID vaccination possible in Ukraine – health chief admits, 21 September 2021.
[60] Racurs, First, we will vaccinate half of the adults - Lyashko on the beginning of vaccination of adolescents, 30 September 2021.
[61] Ukraine Ministry of Finance, Vaccination against coronavirus in Ukraine, accessed 15 October 2021.
[62] Ukraine Ministry of Health, About COVID-19 vaccination in Ukraine, accessed October 2021.
[63] Ukraine Ministry of Health, List of vaccination points and mass vaccination centers, accessed October 2021.
[64] Ukraine Ministry of Health, About COVID-19 vaccination in Ukraine, accessed October 2021.
[65] Ukraine Ministry of Health, Vaccination against COVID-19 of Ukrainian citizens from the temporarily occupied territories continues, 20 August 2021.
[66] OCHA, Ukraine Crossing points - snapshot: August 2021, 15 September 2021.
[67] Ukraine Ministry of Health, Vaccination against COVID-19 of Ukrainian citizens from the temporarily occupied territories continues, 20 August 2021.
[68] Euronews, Eastern Europe in midst of covid surge as vaccinations lag, 14 October 2021.

in general. A March 2021 survey indicated that 60% of Ukrainians would not want to get vaccinated even if the vaccine was provided free of charge,[69] although a survey in September 2021, reported 71.8% of those surveyed willing to receive the vaccine.[70] The Behaviour Insights on COVID-19 in Ukraine Assessment, a cross-sectional survey of the adult population of Ukraine that has conducted 15 waves of data collection since the epidemic began, has shown vaccine hesitancy was higher in October 2021 (54%) than in August 2020 (33%), and that confidence in vaccine safety has remained the most reported factor on which people base their decision. These trends seen from respondents in the East were similar to Ukraine on average.[71]

Health system management

Twelve dashboards currently track COVID-19 and related health system data in Ukraine. The MOH operates ten dashboards in Ukrainian, including one which maps cases and deaths.[72] The Office of the National Security and Defense Council of Ukraine has created a health care system dashboard that maps medical services, pharmacies, hospitalizations, hospital bed type and occupancy and vaccinations.[73] The WHO Regional Office for Europe operates a dashboard with MOH data on regional bed occupancy and oxygen availability.[74]

Table 9: COVID-19 bed occupancy, as of 7 Oct 2021[75]

	COVID-19 allocated beds			COVID-19 allocated beds with oxygen		
	#	#Occupied by suspected /confirmed cases	%	#	#Occupied by suspected /confirmed cases	%
Ukraine	53 475	27 004	50	51 081	25 633	50
Donetska (GCA)	2746	1846	67	2459	1583	64
Luhanska (GCA)	1392	684	49	1392	681	49

Public health and social measures (PHSM)

The WHO PHSM Severity Index, as of 23 September 2021, was among the least stringent in the world.[76] As of 9 September 2021, of individuals who reported practicing recommended measures to protect themselves, 66.3% reported wearing masks and 45.2% reported physical distancing, both of which have shown a downward trend from April 2021.[77] In the Behaviour Insights on COVID-19 in Ukraine Assessment, mask wearing has remined relatively constant between August 2020 and October 2021(81-91% report wearing a mask in public during the last seven days), but physical distancing and avoidance of social events has decreased since August 2020 (57%

[69] OECD, the COVID-19 Crisis in Ukraine, 26 July 2021.
[70] Collective service, COVID-19 Behaviour indicators: Ukraine, accessed 28 October 2021.
[71] WHO, Behavioural Insights on COVID-19 in Ukraine, accessed 28 October 2021.
[72] Ukraine Ministry of Health, COVID-19 dashboard, accessed October 2021.
[73] National Security and Defense Council of Ukraine, Health system of Ukraine, accessed October 2021.
[74] WHO EURO/Ukraine Ministry of Health, Information on bed occupancy and oxygen availability in the regions of Ukraine, accessed 29 October 2021.
[75] National Security and Defense Council of Ukraine, Health system of Ukraine, accessed October 2021.
[76] The WHO PHSM Severity Index a composite measure based on an average of six measures: masks (facial coverings and/or mask wearing), schools (adaptation or closure of schools), businesses (adaptation or closure of businesses), gatherings (limits and restrictions on public and private gatherings), domestic movement (restrictions on domestic movement, public transport and stay at home orders), and international travel (international travel restrictions (entry restrictions, quarantining and testing).
[77] Collective service, COVID-19 Behaviour indicators: Ukraine, accessed 28 October 2021.

reported ensuring physical distancing 1.5-2m in public during the last seven days vs. 34% in August 2020; 66% reported avoiding a social even during the last seven days vs. 56% in August 2020). These trends seen from respondents in the East were similar to Ukraine on average. [78]

According to its system of adaptive quarantine measures in place until 31 December 2021, as of 23 September, the government classified the level of epidemic danger as "yellow." Levels of restrictive anti-epidemic measures are enacted depending on daily assessments of epidemic danger. Societal restrictions increase from level "green" to "yellow" to "orange" to "red".[79] On 18 October 2021, Donetska oblast's epidemic danger level was raised to red. Restrictions at the red level include closing of restaurants, shopping malls, theatres, schools (except kindergartens and primary schools), shops, sports centres and cultural institutions. Mass events are also prohibited, except for official sports events and team games without spectators. The restrictions do not apply to institutions or events in which all employees and visitors/participants are fully immunized and have a green COVID-certificate.[80]

In September and October 2021, news sources reported Donetska NGCA hospitals were at 100% occupancy, struggling to cope with the growing number of COVID-19 cases. Luhanska NGCA reported a similar situation to Donetska and authorities have shut down schools and imposed a strict lockdown starting 20 October 2021.[81]

Sexual and reproductive health

There are no data available on sexual, reproductive and maternal health interventions in Donetska and Luhanska oblasts, apart from the 2017 HeRAMS data. These services may be impacted by the crisis and further impacted by COVID-19 restrictions.

Sexual and reproductive health

Table 10: Sexual and reproductive health indicators[82]

Contraceptive prevalence rate women aged 15-49, any method – All women, 2021	53%
Unmet need for family planning rate women aged 15-49, 2021	6%
Decision making on sexual and reproductive health and reproductive rights, 2007-2018	81%

Maternal health

Compared with data available from the Eastern Europe and Central Asia region, in Ukraine the maternal mortality ratio is the same, whereas the adolescent birth rate and c-section rates are lower.

[78] WHO, Behavioural Insights on COVID-19 in Ukraine, accessed 28 October 2021.
[79] Ukraine Ministry of Health. Quarantine measures, accessed 28 October 2021.
[80] Ukraine Ministry of Health, A red level of epidemiological danger will be introduced in Sumy region, 20 October 2021.
[81] Kyiv Post, Denisova: Number of COVID-19 cases in occupied Donetsk region grows, 20 September 2021.
[82] UNFPA, World population dashboard - Ukraine, accessed October 2021.

Table 11: Maternal health indicators[83]

Maternal Mortality ratio (deaths per 100 000 live births), 2017	19
Antenatal care coverage 4+ visits, 2012	87%
Adolescent birth rate (number of live births to adolescent women per 1000 adolescent women), 2018	18
Births attended by skilled health personnel, 2014	100%
C-section rate, % of deliveries by caesarean section, 2012	12
Postnatal care for mothers - women (aged 15-49) who received postnatal care within two days of giving birth, 2012	96%

Table 12: Maternal and Newborn Health services are available in 12 Tertiary Hospitals in Donetska according to 2017 HeRAMS.

Maternal and newborn health	Fully available (%)	Partially available (%)	Not available (%)	Not normally provided (%)
Family planning	8.3	0	0	91.7
Antenatal care	17	0	0	83.3
Normal delivery	0	0	0	100
Essential newborn care	0	0	0	100
Basic Emergency Obstetric Care (BEmOC)	0	0	0	100
Comprehensive Emergency Obstetric Care (CEmOC)	0	0	0	100
Post-partum care	8.3	0	0	91.7
Comprehensive abortion care	8.3	0	0	91.7
Total (%)	5.2	0	0	94.8

Malnutrition and child health

Malnutrition

Prior to the humanitarian crisis, stunting and acute malnutrition rates were perceived to be low; according to the MICS survey conducted in Ukraine in 2000, 1.3% of children under age of 5 in Ukraine were wasted.[84] High prevalence of acute malnutrition can directly result in increased death rates, but also increases the risk of deaths linked to infectious diseases.

In a small cross-sectional study, published in 2014, of Ukrainian children aged 9 months to 3 years, their diets were found to have excess energy and protein, as well as inadequate amounts of many minerals and vitamins. The nutritional deficit of zinc, iron, calcium and vitamins A, D, E, B6, B12, B1 was most significant.[85] Unlike many middle-income countries, Ukraine has no policy on distribution of micronutrient supplements; there is therefore no distribution of micronutrient activities such as Vitamin A or multiple micronutrient supplementation of children, iron and folic

[83] UNICEF, UNICEF data warehouse, accessed October 2021.
[84] Global Nutrition Cluster, Report of the Global Nutrition Cluster scoping mission to Ukraine, 3-14 February 2015.
[85] Nyankovskyy S, *et al*., Dietary habits and nutritional status of children from Ukraine during the first 3 years of life. August 2014; Pediatria Polska 89(6).

acid supplementation for pregnant women in Ukraine. UNICEF has, however, recently launched a micronutrient supplementation project in some parts of Ukraine.[86]

No data were found on malnutrition in Donetska and Luhanska oblasts (apart from anaemia – see below).

Child health

Anaemia

Table 13: Cases of anaemia reported in children in 2020

Region	Cases[87]	# of Children[88]	% of Children (0-17)
Ukraine	14 476	7 533 930	0.19
Donetska (GCA)	442	572 486	0.08
Luhanska (GCA)	111	267 942	0.04

In a small cross-sectional study, published in 2014, the prevalence of iron-deficiency anaemia was 4.8%. A statistically significant association was found between established nutritional deficiency, iron deficiency anaemia and infectious morbidity.[89]

Endemic infectious diseases

Hepatitis B and Hepatitis C

The national government estimates the prevalence of hepatitis B and hepatitis C to be 1-2.5 %, but notes that epidemiological surveillance for viral hepatitis is limited.[90] As vaccination coverage for hepatitis B does not meet population targets (see Table 5), diagnostics and treatment are limited in the conflict-affected areas, and a large portion of the population is elderly, there may be an increased risk of hepatitis B and hepatitis C incidence and morbidity in the region.

Waterborne diseases

According to 2019 WASH assessment findings, 4% of households in GCA experienced illnesses they attributed to poor water quality, such as diarrhoea, in 2019.[91] Due to the deteriorated WASH situation in Donetska and Luhanska oblasts, there is an increased risk of waterborne diseases which would exacerbate existing health conditions; however, surveillance for these conditions is limited.

Influenza

[86] Global Nutrition Cluster, Report of the Global Nutrition Cluster scoping mission to Ukraine, 3-14 February 2015.
[87] Ukraine Ministry of Health, Report on medical care for children, 29 March 2021.
[88] State Statistics Service of Ukraine, Statistical Yearbook of Ukraine 2019, 2020.
[89] Nyankovskyy S, *et al*., Dietary habits and nutritional status of children from Ukraine during the first 3 years of life. August 2014; Pediatria Polska 89(6).
[90] Cabinet Ministers of Ukraine, On approval of the State Strategy in the field of combating HIV / AIDS, tuberculosis and viral hepatitis until 2030, 27 November 2019.
[91] Ukraine WASH Cluster, WASH cluster study of Humanitarian needs in Eastern Ukraine 2019, 24 November 2020.

During the 2020-2021 influenza season, 4417 influenza-like illness (ILI) cases (418.1 per 100 000) were reported by the Ukraine influenza sentinel surveillance system. The number of cases was 1.7 times that of the 2019-2020 influenza season. Among hospitalized patients during the 2020/2021 influenza season, there were 4617 registered severe acute respiratory infections (SARI) cases (181.3 per 100 000), 2.3 times higher than the previous season.[92] The sentinel centres of the surveillance system are located in different geographical areas of the country: in Kyiv, Dnipro, Odessa and Khmelnytsky, and include 17 sentinel stations: nine hospitals and eight polyclinics.[93]

In Ukraine in 2020, 78 deaths caused by influenza were reported to the SSS, whereas 56 were recorded for 2019. There were three deaths in 2020 and one death in 2019 attributed to influenza in Donetska oblast, and none in either year reported from Luhanska oblast.[94]

Influenza morbidity in the 2020/2021 season was lower in Ukraine and other European countries than during the previous season, attributed to the public health and social measures taken against COVID-19.[95] WHO is predicting the 2021-2022 influenza season to be worse than the last due to a relaxing of public health and social measures related to the COVID-19 pandemic.[96] Circulation of H1N1 and H3N2 strains is expected during the 2021-2022 season. Vaccines against influenza are expected to be available for free for health care workers and at cost from pharmacies for the general public. Pharmacies are expected to receive approximately one million doses.[97]

Epidemic-prone diseases

Measles

Measles is currently endemic in Ukraine. While Ukraine only reported 11 measles cases and no measles deaths from 1 January - 30 September 2021,[99] the country recently experienced a national epidemic between 2017-2020. During the outbreak, the Ministry of Health reported 115 543 measles cases

Surveillance/early warning, alert and response capacity

The Public Health Response Monitor (PHRM), a tool launched in October 2020 as part of the country's COVID-19 response, is used to assess the polices and epidemiological situation across the different regions of the country. The PHRM collects data on regional management and coordination, funding, planning of services, case management and supporting essential health services. Public health data are supplemented with data on the epidemiological situation in each specific region and is accessible through an electronic portal.[98]

[92] The WHO global influenza surveillance standards define the surveillance case definitions for influenza-like illness (ILI) and severe acute respiratory infections (SARI). WHO, WHO surveillance case definitions for ILI and SARI, January 2014.
[93] National Academy of Medical Science of Ukraine, Week 20, 16 June 2021.
[94] State Statistics Service of Ukraine, Databank, accessed October 2021.
[95] National Academy of Medical Science of Ukraine, Week 20, 16 June 2021.
[96] WHO, Influenza is on the rise; how do I prevent it, 1 October 2021.
[97] Ukraine Ministry of Health, Pharmaceutical manufacturers are negotiating the localization of influenza vaccine production in Ukraine" - Igor Kuzin, 13 September 2021.
[98] WHO Euro, WHO analytical tool helps Ukraine monitor how regions respond to COVID-19, 17 December 2020.
[99] WHO EURO, Reported measles cases for the period September 2020 – August 2021, 30 September 2021.

and 40 measles deaths to WHO.[100] Of the measles cases, 1472 were reported from Donetska oblast (GCA) and 164 from Luhanska oblast (GCA).[101] In 2016, national vaccination coverage for measles was reported as 45%, attributed to challenges in vaccine procurement and antivaccination campaigns.[102]

Routine childhood vaccinations have been impacted by the COVID-19 pandemic. In 2020, the Ministry of Health of Ukraine reported that a large number of children missed scheduled vaccinations due to the disruption of immunization programmes caused by the COVID-19 pandemic and quarantine measures in many oblasts in spring 2020. Supplemental vaccination campaigns were conducted later in the year to achieve reported coverage rates of 85% for MCV1and 82% for MCV2 in 2020.[103]

WHO surveillance indicators collected in 2017 highlighted poor laboratory testing rates.[104], Although surveillance systems and laboratory capacity have been improved and expanded during the COVID-19 pandemic, laboratories have been overwhelmed with testing for SARS-CoV-2.[105] In Donetska oblast, laboratory testing is performed at the Mariupol City Branch of the Donetska Oblast Center for Disease Control and Prevention (OCDCP), while in Luhanska, testing is performed at the Severodonetsk OCDCP. The Kramatorsk OCDCP in Donetska Oblast performs testing for SARS-CoV-2.

The country will be at risk If vaccination coverage is not maintained and laboratory testing surveillance is not improved.

Circulating vaccine-derived poliovirus

In September 2021, Ukraine recorded a case of poliomyelitis (polio), caused by circulating vaccine-derived poliovirus type 2 (cVDPV2). The virus was isolated from an unvaccinated 17-month-old girl with acute flaccid paralysis from Rivne oblast in north-west Ukraine. The child's parents refused vaccinations on the grounds of their religious beliefs.[106],[107]

A total of 20 individuals' residing in two oblasts (Rivne and Zakarpattya) had positive isolation of cVDPV2 in stool specimens; all specimens were closely related.[108] The current isolate is closely linked to a virus originating in Pakistan, which has also been the cause of an ongoing cVDPV2 outbreak in Tajikistan.[109]

Country level coordination of the outbreak response is ongoing between the Ministry of Health Public Health Centre and the Global Polio Eradication Initiative (GPEI) partners, including WHO, UNICEF and the US Centres for Disease Control and Prevention. Supplemental vaccination in the community where the case was detected was conducted from 11-22 October 2021 with inactivated polio vaccine (IPV) for children aged less than 5 years of age, regardless of previous

[100] WHO EURO, Reported measles cases for the period January-December 2017, 2 February 2018; WHO EURO, Reported measles cases for the period January-December 2019, 7 February 2020; WHO EURO, Reported measles cases for the period January-December 2020, 3 February 2020;
[101] WHO, Measles, Rubella and Polio Regional Profile – Donetsk, Ukraine, 2021; WHO, Measles, Rubella and Polio Regional Profile – Luhansk, Ukraine, 2021.
[100] Rodyna R. Measles situation in Ukraine during the period 2017-2019. The European Journal of Public Health 29(Supplement_4) November 2019.
[103] UNICEF, COVID-19 Flash Report 3 August 2020.
[104] WHO EURO, Reported measles cases for the period January-December 2017, 2 February 2018.
[105] European Observatory on Health Systems and policies, COVID-19 Health System Response Monitor, December 2020.
[106] Kyiv Post, Ukraine officially confirms case of polio in child, 7 October 2021.
[107] WHO Euro, One case of polio detected in Ukraine, 13 October 2021.
[108] GPEI Ukraine Polio Outbreak Situation Report 11, 17 December 2021.
[109] WHO Euro, One case of polio detected in Ukraine, 13 October 2021.

vaccination history. A nationwide IPV campaign to provide one dose of IPV to all under vaccinated children (those having only zero or one dose) aged between 6 months and 6 years is planned for early 2021.[110]

As of 1 January 2021, the MOH reported 84% of children in Rivne oblast, and 83% of children in Ukraine had been vaccinated against polio (Pol3). National polio vaccination coverage for 2020 was reported by the MOH as 83% for 1-year-olds (Pol3) and 18-month-olds, and 82% for 6- and 14-year-olds.[111] In the first eight months of 2021, just 53% of children under the age of one had received their polio vaccines.[112]

Table 14: Administrative coverage* estimates for polio immunizations administered in 2020 for Ukraine, and Rivne oblast, Donetska oblast (GCA) and Luhanska oblast (GCA)[113]

	Pol3 (up to 1-year old) %	Pol4 (18 months) %	Pol5 (6 years) %	Pol6 (14 years) %
Ukraine	83.0	83.0	81.7	81.8
Rivne oblast	83.6	72.8	79.7	80.0
Donetska oblast (GCA)	87.0	75.2	82.0	82.6
Luhanska oblast (GCA)	91.9	85.2	94.6	89.5

Ukraine's vaccination coverage has been hindered by challenges on the demand side, with anti-vaccination disinformation spreading on social media and high vaccine distrust among the population in general.[114] A survey conducted by the Wellcome Trust in 2019 revealed that just 29% of Ukrainians think vaccines are safe and only 50% believe they are effective. In research conducted by UNICEF, up to 40% of health care workers were found to be vaccine hesitant.[115,116]

Based on status of Ukraine's national polio eradication programme in 2018, the European Regional Polio Eradication Certification Commission (RCC) assessed the country's risk of transmission in the event of the importation of wild poliovirus or the emergence of a vaccine poliovirus (cVDPV) as high.[117] In 2018, vaccination coverage among 1-year-olds (Pol3) was estimated at 71%.[118]

Tuberculosis & HIV

Tuberculosis

Tuberculosis is a serious concern in Ukraine. WHO has identified Ukraine as one of the top 20 countries with the highest estimated number of incident drug-resistant (DR-TB) cases. WHO

[110] GPEI Ukraine Polio Outbreak Situation Report 14, 10 January 2022; Ministry of Health of Ukraine, Action Plan for Response to Outbreaks of Circulating Vaccine-Related Poliovirus Type 2, 30 December 2021.
[111] Ukraine Public Health Center, Vaccination Coverage, 2021.
[112] UNICEF, Ukrainian parents urged to vaccinate children against polio, 27 October 2021.
[113] Center for Medical Statistics of the Ministry of Health of Ukraine, Statistics of the Ministry of Health, MoH Data, 29 March 2021.
[114] Kelland K, Polityuk p. Measles and mistrust in Ukraine weaken world's defenses, 4 November 2019.
[115] Fenn A, Ukraine's anti vaccine crisis: '40% of healthcare workers are skeptical', CGTN, 14 February 2021.
[116] Holt E. COVID-19 vaccination in Ukraine. Lancet Infect Dis. 2021 Apr; 21(4): 462.
[117] WHO Euro, 33rd Meeting of the European Regional Commission for certification of poliomyelitis eradication (RCC), 2018.
[118] WHO/UNICEF. Ukraine: WHO and UNICEF estimates of immunization coverage: 2020 revision, 8 July 2021.

estimates that, among bacteriologically confirmed TB cases in Ukraine in 2020, 4257 people (24%) had DR-TB. The level of DR-TB is particularly worrying as the COVID-19 pandemic has had an impact on the provision of TB services. DR-TB is more difficult and expensive to treat and is associated with a higher mortality than TB infections that are not drug-resistant. When access to diagnostic and treatment programs is reduced or interrupted, as with the COVID-19 pandemic, infections go undetected and drug resistance can develop. In 2020, there was a drop in the number of people newly diagnosed with TB compared to 2019, and subsequently those tested and treated for DR-TB. It is predicted that when access to TB diagnostics and services improves, there will be a rise in diagnosed and reported cases of TB, and that a higher proportion with be drug-resistant.[119]

According to the WHO Global TB report, Ukraine made the fourteenth largest contribution in the world to the global shortfall of TB notifications in 2020 compared to 2019.[120]

Table 15: New cases of TB per 100 000 population in Ukraine, 2019 vs. 2020[121]

	2019	2020	% Change
Total	60.1	42.2	-29.8
Children aged 0 to 14	9.0	5.9	-34.4
Adolescents aged 15-17 years	20.0	14.2	-29.0
TB/HIV coinfection	10.5	6.9	-34.3

The impact of the pandemic can also be seen when comparing the cases reported in the first six-months of 2019, 2020, and 2021.[122]

Table 16: Reported cases of TB in Ukraine 1H 2019, 2020, 2021[123]

	1H 2019	1H 2020	% Change 2019-2020	1H 2021	% Change 2020-2021
TB cases (new + relapses)	13 512	9644	-28.6	8 767	-7.8
MDR TB	4048	2934	-27.5		
TB/HIV	2995	2088	-30.2	1 358	-13.2

In 2019, Ukraine committed to the 2020–2023 State Strategy for Development of Anti-Tuberculosis Care for the Population, aimed at establishing a new model for the prevention, early detection and provision of medical care for TB patients by 2023. Ukraine is also committed to achieve the targets set out in the WHO Global End TB Strategy by 2035.[124]

Donetska and Luhanska oblasts (GCA) had the fourth and eighth highest incident rates of TB among the 24 oblasts in Ukraine, with 56.5 and 47.8 new cases and relapses per 100 000 population, respectively.[125] The impact of the COVID-19 pandemic was also seen on a regional

[119] WHO, Global Tuberculosis Report 2021, 14 October 2021.
[120] WHO, Global Tuberculosis Report 2021, 14 October 2021.
[121] Ukraine Public Health Center, TB Statistics, accessed October 2021.
[122] Ukraine country reports at the National TB, HIV and viral Hepatitis Programme Managers and partners meeting 23-24 September 2020, organized by Euro WHO and ECDC; the Global Fund Strategic Initiative *Finding the missing people with TB* meeting 9 -10 November 2020, organized by WHO, the Global Fund, Stop TB Partnership and UNOPS.
[123] Center for Medical Statistics of the Ministry of Health of Ukraine, Statistics of the Ministry of Health, 29 March 2021.
[124] WHO Euro, World Tuberculosis Day: supporting Ukraine in scaling up TB diagnosis and treatment, 23 March 2021.
[125] Ukraine Public Health Center, TB Statistics, accessed October 2021.

level. Comparing the first quarter of 2020 to the same period in 2021, new and relapse cases registered in Donetska and Luhanska generally decreased, with the exceptions of paediatric cases in Donetska and TB/HIV coinfections in Luhanska.

Table 17: Incident cases of TB in Donetska and Luhanska oblasts (GCA)
Comparison between the period Jan-Mar 2020 and Jan-Mar 2021[126]

Indicator	Donetska (GCA)					Luhanska (GCA)				
	Absolute number		per 100 000 population		% Change from 2020	Absolute number		per 100 000 population		% Change from 2020
	2020	2021	2020	2021		2020	2021	2020	2021	
New cases and relapses	304	240	16.0	12.7	-20.6	103	74	15.0	10.9	-27.3
TB/HIV coinfection	82	50	4.3	2.7	-38.4	8	13	1.2	1.9	+64.1
New cases	259	188	13.6	10.0	-26.5	83	61	12.1	9.0	-25.6
0-14 age	1	2	0.4	0.8	+108	0	0	0	0	0
15-17 age	1	3	2.3	6.5	+186	0	0	0	0	0

In June and July 2021, a study was conducted on the Impact of COVID-19 on essential health services in GCA. Of the facilities surveyed, 55% of those in Donetska and 50% in Luhanska reported tuberculosis tests were not available onsite in the facility.[127]

Table 18: Deaths caused by TB in 2020 as reported by the State Statistics Service of Ukraine[128]

	Ukraine		Donetska (GCA)		Luhanska (GCA)	
	#	per 100 000	#	per 100 000	#	per 100 000
Deaths	2927	7.0	195	4.7	117	5.4

Impact of the COVID-19 response on TB reporting and service delivery in Ukraine

COVID-19 related challenges to TB services in Ukraine include the following:[129]

- increased risk of acquiring COVID-19, especially in congregated settings (hospitals, prisons etc);
- availability of PPE and COVID-19 tests;
- programmatic disruptions:
  - National Tuberculosis Control Programme (NTP) staff involved in response to COVID-19
  - some facilities were reprogrammed
  - monitoring of patients
  - active case finding
  - transportation of sputum
  - biosafety
  - diversion of GeneXpert capacity for COVID-19 testing

[126] Ukraine Public Health Center, TB Statistics, accessed October 2021.
[127] WHO, Impact of COVID-19 on essential health services in Donetska and Luhanska oblasts, GCA, presentation to Ukraine Health Cluster, 29 September 2021.
[128] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.
[129] WHO, Overview of COVID 19 related challenges to TB services in Ukraine and response during March June 2020, 13 September 2020.

  - monitoring visits to regions
  - training
  - psychosocial support
- evidence of potential drug-drug interactions between experimental therapies for COVID-19 and TB.

COVID-19 quarantine measures, travel and related restrictions have: [130]

- reduced the availability of all types of medical care for patients;
- reduced the availability of primary TB diagnosis (microbiological and radiological) at all levels of medical care;
- reduced the accessibility of direct observed treatment (DOT) for patients and monitoring of outpatient treatment;
- delayed international deliveries of anti-TB drugs and consumables for microbiological diagnosis of TB;
- restricted the redistribution of drugs between regions;
- reduced the availability of social support, legal support, and gender-related services (non-governmental and governmental)

HIV

In 2019, Ukraine had the second highest rate of newly diagnosed HIV infections (39 cases per 100 000) and the highest rate of AIDS diagnosis (17.9 per 100 000) in the WHO European Region.[131] While most of the new HIV diagnoses in Ukraine were attributed to heterosexual transmission (>60%), injecting drug use (IDU) was the reported transmission mode in 26% of new diagnoses (fourth highest in the region).

According to the Ministry of Health, 25% of all Ukrainians with HIV prior to the beginning of the armed conflict were living in the conflict-affected oblasts. In 2020, Donetska oblast (GCA) had the second highest rate of new HIV infections (41.0 per 100 000), the second highest rate of AIDS cases (10.8), and the third highest rate of deaths from AIDS (28.2), and the third highest number and rate of people living with HIV (PLHIV) on treatment of all the Ukrainian oblasts.[132] In Luhanska oblast (GCA), HIV/AIDS rates were lower than those for Ukraine or Donetska: new HIV infections: 18.0, rates AIDS cases: 5.3, and deaths from AIDS: 4.7.

Table 19: New cases of HIV infection, AIDS and deaths registered in 2020 with the Ministry of Health[133]

	Ukraine		Donetska (GCA)		Luhanska (GCA)	
	#	per 100 000	#	per 100 000	#	per 100 000
HIV infection	15 659	41.0	1220	64.0	123	18.0
AIDS	4131	10.8	538	28.2	36	5.3
Deaths from AIDS	2112	5.5	191	10.0	32	4.7

[130] Ukraine country reports at the National TB, HIV and viral Hepatitis Programme Managers and partners meeting 23-24 September 2020, organized by Euro WHO and ECDC and at the Global Fund Strategic Initiative *Finding the missing people with TB* meeting 9 -10 November 2020, organized by WHO, the Global Fund, Stop TB Partnership and UNOPS

[131] ECDC, HIV/AIDS surveillance in Europe 2020 (2019 data), 26 Nov 2020.

[132] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.

[133] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.

Deaths recorded as "caused by HIV" from the State Statistics Service databank differ from those reported in PHC MoH publications.[134]

Table 20: Deaths caused by HIV in 2020 as reported by the State Statistics Service of Ukraine[135]

	Ukraine		Donetska (GCA)		Luhanska (GCA)	
	#	per 100 000	#	per 100 000	#	per 100 000
HIV	2949	7.0	191	4.6	45	2.1

Table 21: Patients registered in health care facilities that carry out medical supervision of PLHIV, as of 1 January, 2021[136]

	Ukraine		Donetska (GCA)		Luhanska (GCA)	
	#	per 100 000	#	per 100 000	#	per 100 000
HIV infection	144 089	378.8	12 236	649.6	2156	318.9
AIDS	47 778	125.6	5697	302.4	560	82.8

As of 31 March 2021, in the GCA of Donetska, out of the estimated 16 211 PLHIV, 12 033 (74%) were aware of their HIV status, of which, 10 797 (89%) were receiving ART. Of the patients who had been on treatment for more than six months, 9613 (89%) had had a viral load test and 8956 (93%) had achieved viral suppression. Comparing Q12020 to Q12021, the number of people who know their HIV status increased by 2%, while the number receiving ART increased by 5%, viral load (VL) testing increased by 8%, and the same number of those who were viral load tested (93%) had viral suppression. HIV testing decreased by 4.2%, while the testing yield decreased by 0.32% (0.95% in 2021 vs 1.28% in 2020). Between these periods, provider-initiated testing and counselling services increased in the region.[137]

As of 31 December 2020, in the GCA of Luhanska, out of the estimated 3207 PLHIV, 2156 (67%) were aware of their HIV status, of which, 1882 (62%) were receiving ART. Of the patients who had been on treatment for more than six months, 77% had had a viral load test and 1391 (96%) had achieved viral suppression. In comparison to 2019, in 2020 the number of people who know their HIV status increased by 1%, those receiving ART increased by 3%. The number of patients on treatment who were viral load tested decreased by 6%, and fewer had viral suppression (<1%).[138]

Table 22: UNAIDS Ukraine HIV and AIDS estimates 2020[139]

Adults aged 15 and over living with HIV	260 000
Adult and children newly infected with HIV (2019)	9300
Adult and child deaths due to AIDS	3100
People living with HIV who are on ART	146 488
Coverage of adults and children receiving ART (%)	57%
Coverage of pregnant women who receive ARV for PMTCT (%)	95%
Early infant diagnosis (%)	73%

[134] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.
[135] State Statistics Service of Ukraine, Databank, accessed October 2021.
[136] Public Health Center of the Ministry of Health of Ukraine, Registered HIV infection, AIDS, and deaths 2020.
[137] Meeting of MDTs of regional Donetska HIV/AIDS services on 14-16 June, 2021.
[138] Meeting of MDTs of regional Luhanska HIV/AIDS services in January 2021.
[139] UNAIDS, Ukraine, accessed October 2021.

Table 23: HIV treatment cascade Ukraine, Donetska and Luhanska oblasts, 2019 and 2020

Region/oblast	Year	People living with HIV (PLHIV)	PLHIV who know HIV status	PLHIV receiving ART	PLHIV achieving viral suppression
Donetska GCA[140]	2019	16 211	11 499	9760	7264
Luhanska GCA[141]	2020	3207	2141	1882	1391

Table 24: Availability of STI and HIV/AIDS health services in 12 tertiary hospitals in Donetska according to the 2017 HeRAMS

STI and HIV/AIDS	Fully available (%)	Partially available (%)	Not available (%)	Not normally provided (%)
Management of sexually transmitted infections	33.3	8	0	58.3
Standard precautions	92	0	0	8.3
Availability of free condoms	16.7	0	0	83.3
Prophylaxis and treatment of opportunistic infections	25	25	0	50
HIV counselling and testing	58.3	0	0	41.7
Prevention of mother-to-child HIV transmission (PMTCT)	16.7	0	0	83.3
Antiretroviral treatment (ARV)	16.7	0	0	83.3
Total (%)	36.9	4.8	0	58.3

Table 25: Availability of STI and HIV/AIDS health services in 11 tertiary hospitals in Luhanska according to the 2017 HeRAMS.

STI and HIV/AIDS	Fully Available (%)	Partially Available (%)	Not Available (%)	Not Normally Provided (%)
Management of sexually transmitted infections	9.1	18.2	0	72.7
Standard precautions	72.7	0	0	27.3
Availability of free condoms	9.1	0	18.2	72.7
Prophylaxis and treatment of opportunistic infections	9.1	9.1	0	81.8
HIV counselling and testing	63.6	9.1	0	27.3
Prevention of mother-to-child HIV transmission (PMTCT)	9.1	0	0	90.9
Antiretroviral treatment (ARV)	18.2	0	0	81.8
Total (%)	27.3	5.2	2.6	64.9

Impact of the COVID-19 response on HIV surveillance and response

The main challenges the COVID-19 response creates for HIV programmes include access issues related to HIV prevention services (including prevention of mother-to-child transmission of HIV and harm-reduction services), laboratory testing, patient care, procurement and distribution of

[140] Regional HIV profile Donetska: WHO and UPHC 2019 (unpublished).
[141] Regional HIV profiles Luhanska: WHO and UPHC 2020 (unpublished).

diagnostic materials and treatment. Early infant diagnosis, and patient retention and follow-up are made more difficult by movement restrictions and an overburdened health system.[142]

Non-communicable diseases

NCDs are the leading cause of premature death (death occurring before the age of 70 years) in Ukraine, accounting for 91% of the total number of deaths.[143] Deaths from the five major NCDs (cardiovascular diseases, diabetes, cancers, chronic respiratory diseases and mental health conditions) make up almost 84% of the total[144].

In 2020, cardiovascular disease (CVD) was the leading cause of death in Ukraine, causing 66.1% of all deaths. Similarly, in Donetska and Luhanska GCAs, CVD was reported to have caused 65.5% and 68.3% of reported deaths, respectively. The NCD death rates in Donetska and Luhanska GCA for selected NCDs (see table below) were lower than the national rates. The NCDs highlighted in the table below are those for which cause of death statistics are available from the SSS.

Table 26: 2020 Death rates for selected NCDs in Ukraine, Donetska (GCA) and Luhanska (GCA)[145]

	Ukraine	% of all deaths	Per 100 000	Donetska	Per 100 000	% of deaths in Donetska	Luhanska	Per 100 000	% of deaths in Luhanska
All deaths	616 835	100	1620	37 131	1977	6	15 113	2248	3
CVD	408 163	66	1072	24 335	1296	66	10 327	1536	68
Cancer	77 880	13	204	4812	256	13	1685	251	11
Diabetes	2122	<1	6	110	6	<1	67	10	<1
Mental health disorders	971	<1	3	40	2	<1	2	<1	<1

A study by Greene-Cramer, *et al.*,[146] of the noncommunicable disease burden among of adults in the Donbas region (Donetska and Luhanska oblasts) was conducted in May-June 2018. The survey assessed the prevalence, risk factors, and effect of conflict on self-reported diagnosed NCDs and access to care. More than half of participants reported one diagnosed NCD. The most prevalent NCDs were hypertension and other cardiovascular diseases. Prevalence of NCD diagnosis was generally higher in older age groups, and also higher in women than in men. Factors associated with perceived worsening of disease included psychological distress,

[142] Ukraine Ministry of Health, Global Fund Funding Request Form Allocation Period 2020-2022, June 2020.
[143] United Nations Ukraine, STEPS survey reveals high prevalence of noncommunicable disease risk factors in Ukraine, 18 November 2020.
[144] Dumcheva A, Habicht J, Mikkelsen B, Farrington J, Mauer-Stender K, Bigot A et al. Tackling noncommunicable diseases in Ukraine 2015–2019. Copenhagen: WHO Regional Office for Europe; 2020.
[145] State Statistics Service of Ukraine, Databank, accessed October 2021.
[146] Greene-Cramer, B. et al. (2020) 'Noncommunicable disease burden among conflict-affected adults in Ukraine: A cross-sectional study of prevalence, risk factors, and effect of conflict on severity of disease and access to care', Plos One.

interruptions in medication, and inability to see a doctor at some point since the start of the conflict.[147]

In the conflict-affected oblasts, due to the large proportion of older people and the reduced access to health care due to the conflict and pandemic situation, it is likely that the NCD burden will continue to increase.[148]

NCD Risk factors

In 2019, a national survey of prevalence of major NCD risk factors utilising the STEPwise approach to surveillance (STEPS) methodology was conducted in conjunction with the Ministry of Health of Ukraine and World Health Organization Regional Office for Europe.[149]

Table 27: Summary of NCD risk factors in the Ukrainian population from the WHO STEPS survey[150]

NCD Risk Factor	% Overall population	% of Male	% of Female
Tobacco – Current smokers	33.9	50.3	16.7
Alcohol – Current drinkers of alcohol	55.6	66.1	44.6
Fruits and Vegetables – Low intake of fruits and vegetables	66.4	73.2	59.4
Salt – Salt intake of 5g or more per day	86.9	N/A	N/A
Physical activity – Insufficient physical activity	10	9.1	10.8
Overweight	59.0	58.0	60.2
Obesity	24.8	20.1	29.8
Blood Pressure – Raised blood pressure	34.8	34.5	35.0
Blood Glucose – Raised fasting plasma glucose	7.1	6.7	7.4
Cholesterol – Raised total cholesterol	40.7	40.6	40.9
Multiple risk factors – Three or more NCD risk factors	32.8	39.9	25.2

In the above-mentioned study of adults in the Donbas region by Greene-Cramer *et al.,* NCD risk factors were generally lower than those reported in the national WHO STEPS survey, with the exception of raised blood pressure (hypertension) (see table below). The survey in the Donbas region noted 78% of older adults (>60 years old) reported having at least one NCD. Greene-Cramer *et al*.'s survey also found that cost was the main reason participants reported they were unable to see a doctor for their NCD since the conflict began and for interruptions in NCD medication.[151] More research will be needed to evaluate the impact of recent health care reforms on cost as a barrier to access.

[147] Greene-Cramer, B. et al. (2020) 'Noncommunicable disease burden among conflict-affected adults in Ukraine: A cross-sectional study of prevalence, risk factors, and effect of conflict on severity of disease and access to care', Plos One.
[148] WHO, Steps Prevalence of Noncommunicable disease risk factors in Ukraine 2019, 2020.
[149] WHO, Steps Prevalence of Noncommunicable disease risk factors in Ukraine 2019, 2020.
[150] WHO, Steps Prevalence of Noncommunicable disease risk factors in Ukraine 2019, 2020.
[151] Greene-Cramer, B. et al. (2020) 'Noncommunicable disease burden among conflict-affected adults in Ukraine: A cross-sectional study of prevalence, risk factors, and effect of conflict on severity of disease and access to care', Plos One.

Table 28: Comparison NCD Risk Factors in Ukraine and Donbas [152]

NCD Risk Factor	Ukraine (%)	Donbas (%)
Overweight, Obesity	59.0, 24.8	20
Blood Pressure – Raised blood pressure	34.8	38.4
Blood Glucose – Raised fasting plasma glucose	7.1	7.0
Cholesterol – Raised total cholesterol	40.7	7.2

Trauma

Crisis-attributable casualties

Since the start of the conflict in 2014, more than 13 000 people have been killed, including 3106 civilian men, women and children; and approximately 37 000 (7000 civilians) have been injured.[153]

In 2021, OHCHR recorded in total 110 civilian casualties; 25 people were killed and 85 injured, a 26.2% decrease compared with 2020, when 149 civilian casualties (26 killed and 123 injured) were recorded. The majority of casualties were due to mines, unexploded ordnance and other explosive objects. [154] During the 12 months after the ceasefire of 27 July 2020, the number of civilian casualties caused by active hostilities (16: five killed and 11 injured) was 82.8% lower compared with the 12 months before (93: nine killed and 84 injured). In August and September 2021, the numbers of civilian casualties caused by active hostilities returned to the levels observed before 27 July 2020.[155]

Mines have taken a heavy toll on civilians in the region. There have been more than 1200 Explosive remnants of war (ERW)- or mine-related civilian casualties recorded in Ukraine since the conflict began in 2014, the UN reports. From 1 January to 30 September 2021, civilian casualties resulting from mine-related incidents and ERW handling totalled 49: 11 killed (seven men, three boys and one girl) and 38 injured, accounting for 58.3% of all civilian casualties recorded during that period. This is a 14% decrease compared with the same period of 2020. Of the casualties in 2020, 69% were in NGCA and 31% in GCA.[156] The UN has underscored that the verified figures are underreported, with the actual number of civilian casualties resulting from ERW and mines likely being much higher.[157]

Gender-based violence

Gender-based violence has long been a serious problem in Ukraine, with approximately 75% of women stating they had experienced some form of violence since age 15, and one in three had experienced physical or sexual violence.[158]

[152] Greene-Cramer, B. et al. (2020) 'Noncommunicable disease burden among conflict-affected adults in Ukraine: A cross-sectional study of prevalence, risk factors, and effect of conflict on severity of disease and access to care', Plos One.
[153] OHCHR, Conflict-related civilian casualties in Ukraine, 12 January 2022.
[154] OHCHR, Conflict-related civilian casualties in Ukraine, 12 January 2022.
[155] OHCHR, Conflict-related civilian casualties in Ukraine, 8 October 2021.
[156] OHCHR, Conflict-related civilian casualties in Ukraine, 12 January 2022.
[157] USAID, 'Ukraine - Complex Emergency Fact Sheet #3, Fiscal Year (FY) 2021', 2 July 2021.
[158] UNFPA, Ukraine steadfast in tackling gender-based violence, despite pandemic-related increases, 13 November 2020.

Table 29: Gender-based violence attitudes/beliefs according to the OSCE-led survey on violence against women (2018)[159]

	Totally agree/ Tend to agree	Totally disagree/ Tend to disagree
Views on whether or not domestic violence is a private matter	26%	63%

	Intimate partner	Non-partner
Prevalence of physical and/or sexual violence in the 12 months prior to the survey	7.6%	5.9%

	Since the age of 15	In the 12 months prior to the survey
Prevalence of all forms of sexual harassment	49%	16.9%

	Partner fought in an armed conflict	Partner had not fought in an armed conflict
Prevalence of physical and/or sexual violence, by current partner's involvement in conflict	31%	15%

In 2017, Ukraine initiated a reform of legislation on domestic and sexual violence and in 2019 Ukraine's new domestic violence law came into effect.[160] Its impact remains undetermined.

Currently, under the COVID-19 pandemic, there has been a worsening GBV situation with the national hotline on domestic violence receiving a 23% increase in calls during the first month of quarantine and a 72% increase in the second month of quarantine in spring 2020.[161]

Technological and environmental health risks

Conflict-related environmental health risks

The degradation of the environment in the Ukraine as a result of conflict and its constituent activities comes in many forms: air pollution from the building of and the follow-on emissions from military vehicles; waste that remains uncollected, promoting disease and the contamination of water resources; soil and water pollution caused by toxic unexploded ordnance and detonated munitions; and particulates and other air pollutants emitted from destroyed and smouldering buildings.[162]

Industrial environmental health risks

[159] OSCE, OSCE-LED survey on violence against women – Well-being and safety of women, 2019.
[160] Semchuk, K, Ukraine's legislation on domestic violence gets a reboot - but is it enough?, 4 March 2020.
[161] UNFPA, Ukraine steadfast in tackling gender-based violence, despite pandemic-related increases, 13 November 2020.
[162] Hook K, Marcantonio Richard, War-related environmental disaster in Ukraine, 16 October 2018.

The conflict-affected oblasts also have a long history of mining and industrial production that has resulted in the accumulation of sites harbouring environmental risks, such as pollutants, ranging from heavy metal toxins in mining tailings to industrial chemical pollution around manufacturing buildings. Before the conflict, the Ministry of Ecology and Natural Resources (MENR) designated 4240 sites as potentially hazardous. Specifically, 2160 sites are deemed potentially explosive due to methane content, 24 are flagged due to radiation hazards, 909 are hydro-dynamically hazardous, and 34 are biohazardous. Before the armed conflict began, the MENR actively monitored and managed each of these sites to mitigate the environmental and health risks.[163]

Of particular concern are the neglected and abandoned mines that are filling with toxic groundwater, threatening to contaminate drinking water and soil.[164] To prevent disaster, local authorities have had to continually pump water out of the mines. Methane gas from the mines is being pushed to the surface in some cases, threatening to cause earthquakes and explosions. In the NGCA, mines have reportedly been closed without the necessary preparations to make them safe. A news source reports 88 out of 121 mines currently in existence in the conflict-affected oblasts are in the NGCA. [165]

Water treatment processes in the region are also a health risk due to the liquefied chlorine gas they use to disinfect water and to treat sewage. Exposure to chlorine gas can cause respiratory damage. In November 2017, the Donetsk Filter Station was shelled at least three times, and a backup chlorine pipeline feeding Donetsk Filter Station was damaged. In 2017 alone, chlorine gas release was a real risk on nine different occasions during the conflict in Donetska because of shelling near to where the gas was stored.[166]

More information on the health impact of industrial risks and incidents in Donetska and Luhanska oblasts is needed.

Extreme winter conditions

Ukraine experiences extreme winter weather conditions lasting from November to March, with temperatures dropping as low as -20°C. The impact of the conflict is felt even more during winter months, and humanitarian needs are exacerbated due to freezing temperatures, frequent stoppages of water, gas, and electricity, and decrease in food availability. According to results of an assessment conducted by REACH Initiative in February 2018, 74% of households surveyed in Donetska and Luhanska experienced more health problems in winter. Access to health care was more difficult during winter for 40% of households (51% in rural areas), often because of the long distances to access health facilities. In addition, household utility (electricity, water, heating, etc.) expenses increase in winter, constituting around 30% of monthly expenditures. As a coping mechanism, households may reduce other expenses (e.g., food, health care) to pay for utilities.[167]

[163] Hook K, Marcantonio Richard, War-related environmental disaster in Ukraine, 16 October 2018.
[164] Melkozerova, V., Ukraine's war-torn Donbas region is on the verge of environmental disaster, 16 May 2021.
[165] Melkozerova, V., Ukraine's war-torn Donbas region is on the verge of environmental disaster, 16 May 2021.
[166] UKInform, The OSCE spoke about the greatest environmental risks for frontline areas, 8 June 2021.
[167] Acaps Ukraine – Conflict in Donetsk and Luhansk Briefing note, 4 November 2019.

Mental health and psychosocial support

Matrix B: Magnitude of expected mental health and psychosocial support problems and their expected evolution over time.

MENTAL HEALTH, AND PSYCHOSOCIAL SUPPORT			
Months	**Dec-Jan**	**Feb-Apr**	**May-Nov**
Acute psychological distress			
Exacerbation of chronic mental health problems			
Psychosocial support problems			

Red: Could result in high levels of excess mental health/psychosocial support problems.
Orange: Could result in considerable levels of excess mental health/psychosocial support problems.
Yellow: Could make a minor contribution to excess mental health/psychosocial support problems.
Green: Will very probably not result in any excess mental health/psychosocial support problems.
Grey: No plausible assessment can be made at this time.

The conflict in Donetska and Luhanska oblasts has led to significant human losses, considerable suffering, large scale civilian displacement, as well as extensive destruction of private property and public infrastructure. Exposure to such trauma and stress can increase the need for mental health and psychosocial support. Almost 40% of the residents of Donetska and Luhanska have experienced trauma resulting in stress, depression, anxiety, and post-traumatic stress disorder.[168]

There is generally low mental health awareness in Ukraine and stigma associated with mental illness. Historically, the large centralized psychiatric system has been associated with human rights violations.[169] In April 2021, a health perceptions assessment was performed in the GCA of Donetska and Luhanska. The survey recorded that 30% of respondents reported paying no attention or almost no attention to mental well-being (low mood, anxiety, stress, sleeping problems) while assessing their own health. Approximately 50% of respondents reported knowing that a place exists where they can get help from trained people to deal with mental health issues. Research conducted in December 2018 showed that a large majority (83%) of people in Donetska and Luhanska regions (GCA) did not know about the psychosocial help centres in their area.[170]

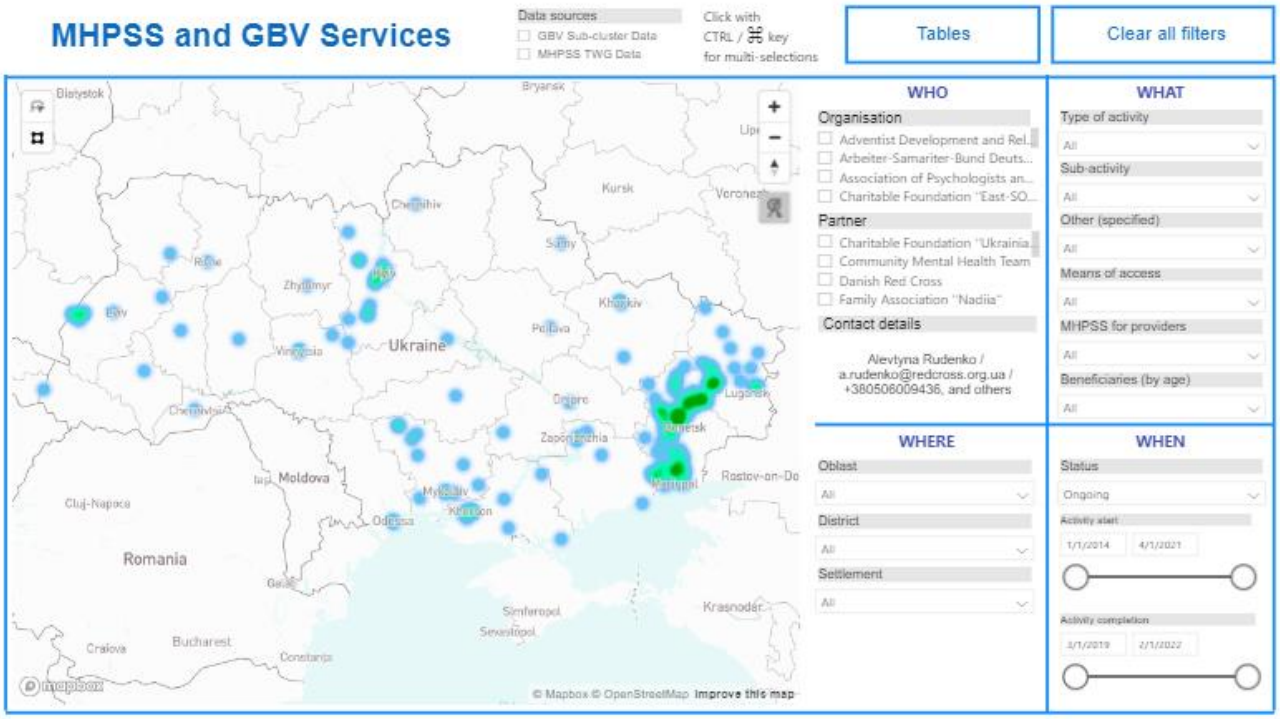
Humanitarian actors currently provide most of the available psychosocial services. Mental health services, on the other hand, are mainly offered by state service providers, and outreach assistance is very limited or unavailable in communities along the contact line.

In June 2021, the Mental Health and Psychosocial Support (MHPSS) Technical Working Group launched a 4W online map[171] of humanitarian MHPSS and prevention of GBV services using data from the protection and health clusters. The map can be displayed in either English or Ukrainian.

[168] Kyiv Institute of Sociology, Mental health in Donetsk and Luhansk oblasts – 2018.
[169] WHO, Ukraine WHO Special Initiative for Mental Health Situational Assessment January 2020.
[170] Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
[171] Ukraine Mental Health and Psychosocial Support Technical Working Group, MHPSS and GBV Services, accessed October 2021.

An online map of government facilities providing mental health services (in Ukrainian) and a searchable list of hotlines are also available on the same web page.

Fig. 5: Online map of humanitarian MPHSS and GBV services



Pre-existing mental health and psychosocial support needs of the conflict-affected population are intensifying as a result of the significant distress and indirect socio-economic effects caused by the COVID-19 pandemic.[172]

Table 30: The 2017 HeRAMS reported Mental Health Services availability in 12 Tertiary Hospitals (Donetska)

	Fully Available (%)	Partially Available (%)	Not Available (%)	Not Normally Provided (%)
Support of acute stress and anxiety and front-line management of common mental disorders	8.3	0	0	91.7
Management of severe mental disorders (e.g., psychotic disorders)	8.3	0	0	91.7

[172] OCHA, Ukraine Humanitarian Needs Overview, February 2021.

Table 31: The 2017 HeRAMS reported Mental Health Services availability in 12 Tertiary Hospitals (Luhanska)

	Fully Available (%)	Partially Available (%)	Not Available (%)	Not Normally Provided (%)
Support of acute stress and anxiety and front-line management of common mental disorders	36.4	0	0	63.6
Management of severe mental disorders (e.g., psychotic disorders)	36.4	0	0	63.6

3. Vulnerable groups affected

Vulnerable groups in the conflict-affected regions include people over the age of 60, people with disabilities, children and youth, women and girls, victims of human trafficking, people living in isolated settlements, health care workers, and IDPs.

People over the age of 60

In the conflict-affected oblasts, it is estimated that 31% of the people in need of humanitarian health assistance are 60 years and older – more than 471 000 people. This is the highest proportion of elderly people in need among humanitarian settings in the world. The population is older than the average for Ukraine because the elderly are not as mobile and are less likely to leave their homes than their children who have moved in large numbers to cities in search of safety and employment.[173]

Older people present higher rates of disability, are more likely to be separated from their families, and are highly susceptible to economic insecurity. In Ukraine, many elderly people face great difficulties in accessing social benefits. In particular, the government requires pensioners living in NGCA to register as IDPs in GCAs and provide addresses in government-controlled areas in order to receive their pensions. The practice has been described as discriminatory by Human Rights Watch and puts elderly people in a vulnerable situation. Once every 60 days, they are forced to travel through Ukrainian crossing points, which can be tedious as well as dangerous. The government refuses to pay their pension if they do not comply with this requirement. Many rely on pensions to survive, yet as of December 2018, only 562 000 pensioners out of the 1.2 million registered in NGCA were receiving their pensions.[174]

A needs assessment survey of people over 60 years of age was conducted in August 2021 by HelpAge. Compared with the survey in August 2020, notable differences with respect to health were: more people had limited mobility (86% vs. 81%); more could not afford to buy preventive products against COVID-19 (28% vs. 20%); more were in need of PPE (96% vs. 71%).[175],[176]

[173] OCHA, Ukraine Humanitarian Needs Overview, 2022 (in press).
[174] Acaps Ukraine – Conflict in Donetsk and Luhansk Briefing note, 4 November 2019.
[175] HelpAge International, Humanitarian needs of older women and men in government controlled areas of Donetska and Luhanska oblasts, Ukraine - Snapshot of baseline report, August 2021.
[176] HelpAge International, Humanitarian needs of older women and men in government controlled areas of Donetska and Luhanska oblasts, Ukraine - Snapshot of baseline report, August 2021.

Humanitarian needs of older women and men in GCAs of Donetska and Luhanska oblasts, Ukraine – August 2021[177]

AWARNESS ABOUT COVID-19

- 11.4% of older people have been vaccinated against COVID-19
- 79% of respondents stated that TV broadcast would be a preferable way to receive the information regarding COVID-19 Pandemic, 6% preferred radio, 10% - face-to-face communication

LIVELIHOODS

- 97.9% of older women and men rely on a pension as their main source of income, 88.5% of older people have only one source of income
- 64.5% of older people spend the majority of their income on medicines and 25.9% on food
- 11.1% of older people are in debt, including arrears on utilities

PROTECTION

- 98.4% of older people are experiencing various conflict-related psychosocial issues
- 50.7% of older people report that they are living alone
- 5.9% of older people indicated that they have received humanitarian aid in the last 6 months
- 4.4% of older people (out of these, 71.2% women) reported about the cases of psychological violence, verbal abuse, financial abuse

HEALTH

- 98.4% of people interviewed have at least one chronic disease
- 86.2% of older people have limited mobility and partly in need of the help of others, 10.1% of older people are immobile
- 70.4% of older women and men had issues with access to medical facilities and medicines
- 27.9% of respondents could not afford to buy preventive products against COVID-19 (soap, antiseptics, medical masks, latex gloves, etc.)
- 96.3% of respondents indicated they were in need of PPE (antiseptics, medical masks, latex gloves)

SHELTER / NFIs

- 99.3% of older people report that they require NFI support (hygiene kits, assistive devices, diapers, urological pads, winter clothes, etc)
- 49% of older people have accommodations fully suitable for living both in summer and winter weather

WASH

- 98.5% of older people require basic hygiene items
- 23.8% of respondents reported they had issues with access to safe drinking water and 4.5% with access to sanitation

FOOD SECURITY AND NUTRITION

- 67% of older people stated that they had to decrease their food intake since the beginning of the conflict
- 25.1% of older women and men indicate a lack of access to places of purchase
- 32% of older people indicated food as the 1st priority, 37% - indicated it as the second priority and 17% indicated food as the third priority during COVID-19

[177] HelpAge International, Humanitarian needs of older women and men in government controlled areas of Donetska and Luhanska oblasts, Ukraine - Snapshot of baseline report, August 2021.

People with disabilities

According to the State Statistics Service of Ukraine, as of 1 January 2020, 2 703 006 people with disabilities (PwD) were registered in Ukraine. As some of the most densely populated regions of Ukraine, Donetska and Luhanska oblasts contain an estimated 210 212 PwD (140 845 in Donetska oblast and 49 367 in Luhanska oblast), representing about 8% of the total Ukrainian population of PwD. OCHA estimates 13% of those in need of humanitarian health care, roughly 197 000 people, are PwD.[178]

Key concerns for PwD in the conflict-affected areas include: security concerns due to challenges in evacuating from places under shelling; barriers to registering for official disability status (complex bureaucratic procedures and distance/cost of travel to registration offices); lack of adequate health care, including access to physical rehabilitation support; higher risk of psychosocial distress; lack of accessibility and disability-friendly environments; lack of accessible information; and low socio-economic opportunity.[179]

As reported in the February 2020 *Multi-Sector Needs Assessment: Non-Government Controlled Areas of Donetska and Luhanska Oblasts*, a high proportion of education and social services are not fully accessible to PwD.[180]

Children and youth

According to UNICEF, an estimated 1 million children are living in the conflict-affected regions of Donetska and Luhanska.[181] According to the 2022 Humanitarian needs overview, 13% of the 1.5 million people in need of humanitarian health services are children.[182] Over 250 000 children living near the "contact line" regularly experience shelling and exposure to landmines and explosive remnants of war (ERWs).[183] Between June 2014 and August 2020, 42 children died as a result of the explosion of mines and unexploded ordnance, and 144 were injured.[184] According to the Danish Refugee Council-Danish Demining Group and UNICEF Mine victim assistance needs assessment report, landmines, ERWs and unexploded ordnance were the leading cause of conflict-related child casualties in Ukraine in 2017, accounting for approximately two-thirds of all recorded deaths and injuries and leaving many children with lifelong disabilities. Of all the injuries received by child mine/ERW survivors assessed in this report, 65% of injuries were to upper limbs, 53% to lower limbs and 53% to the head/neck. An analysis of the cause of accident reports 15 accidents were from picking up, tampering with, handling or playing with ERWs; one accident due to travelling; and one accident due to collecting wood.[185]

Access to health services is made more difficult due to security issues and poor public transport, and exacerbated by the lack of medical specialists. The pandemic has impacted the already

[178] OCHA, Humanitarian Needs Overview, 2022 (in press).
[179] Protection Cluster Ukraine, Persons with Disabilities, October 2015.
[180] REACH, Ukraine Multi-Sector Needs Assessment – Non-Government Controlled Areas of Donetsk and Luhansk Oblasts, February 2020.
[181] UNICEF, Humanitarian Action for Children 2021 - Ukraine, 20 November 2020.
[182] OCHA, Ukraine Humanitarian Needs Overview, 2022 (in press).
[183] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[184] 112 Ukraine, 42 Children died due to mine explosions in Donbas, - UNICEF, 3 April 2021.
[185] UNICEF, Mine Victim Assistance Needs, 2019.

weak vaccination system, which increases the risks of outbreaks of vaccine-preventable diseases, such as measles or polio, especially among children.[186]

Youth are at risk of developing negative coping mechanisms, which include alcohol and drug abuse, high-risk sexual behaviours which increase the risk of contracting HIV/AIDS, and aggressive behaviour.[187]

The combined effects of psychological trauma, fear of a new escalation of the conflict, daily risk of injury and restrictions on freedom of movement can lead to mental health issues.[188]

Women and girls

Women and girls remain disproportionately affected by the crisis, representing 54% of the population in need in the health sector, some 810 000 people. Women may be more exposed than men to COVID-19-related health risks, as four-fifths of all health care and social workers in Ukraine are female. Overall, female-headed households are more heavily impacted by the social and economic consequences of the COVID-19 pandemic.[189] Women represent over 70% of low-income earners in need of social assistance, and are at increased risk of adopting negative coping mechanisms when their access to social benefits is cut off due to COVID-19-related restrictions.[190]

Women and children living in isolated settlements often experience limited access to reproductive health services due to security reasons, unavailability of public transport and limited financial resources. Pregnant and breastfeeding women continue to face compromised access to reproductive health and referral services, antenatal and postnatal care and safe birthing practices. Maternal health care is largely not available due to the lack of trained care providers and non-functioning referral systems. Women and children affected by armed conflict are also more prone to developing health problems related to war-related traumas and injuries, which require continuous medical care and psychosocial services and regular assessment of their condition.[191]

Women and girls in the affected regions are also more vulnerable to resort to negative coping strategies, such as transactional sex, which often results in unwanted pregnancies and abortions, as well as increased risk of sexual transmission of HIV and sexually transmitted infections (STIs).

Victims of human trafficking

Ukraine is a country of origin, transit, and destination for human trafficking. According to IOM estimates, over 260 000 Ukrainians have become victims of human trafficking since 1991. In 2020, IOM identified and assisted 1680 victims of trafficking in Ukraine, of which the most common type of exploitation was forced labour (97%) in sectors such as construction (55%), manufacturing (28%) and agriculture (11.5%). Of the trafficking survivors, 74% were men and 26% were women. Victims of trafficking were predominantly recruited locally in Ukraine through personal contacts

[186] UNICEF, Humanitarian Action for Children 2021 - Ukraine, 20 November 2020.
[187] Kyiv Institute of Sociology, Mental health in Donetsk and Luhansk oblasts – 2018.
[188] Kyiv Institute of Sociology, Mental health in Donetsk and Luhansk oblasts – 2018.
[189] OCHA, Humanitarian Response Plan at a Glance, 25 November 2020.
[190] OCHA, Humanitarian Response Plan at a Glance, 25 November 2020.
[191] OCHA, Ukraine Humanitarian Needs Overview, February 2021.

(83%). Other recruitment channels included internet advertisements (11%), unofficial private advertisements (3.5%), and employment agencies (2.5%).[192]

The conflict exacerbates the risks of human trafficking, especially for women and girls, who are reported to be recruited for sex trafficking. Ukrainian children are also at risk of being subjected to forced begging, sex, and labour trafficking. A 2019 IOM survey of over 3000 vulnerable youths in the country found that 66% declared being ready to accept at least one offer that may lead to their involvement in human trafficking. In NGCA, there are reports of children being used as soldiers, human shields, informants, and checkpoint guards. There have been reports of adolescents and young men in conflict areas being pressured or forced to fight. Men are recruited for forced labour in different sectors, including construction, agriculture, manufacturing, and the lumber industry. Since 2015, an estimated 2000 to 3000 Ukrainians have ended up in prisons in Russia on illicit drug charges, after having been promised legal employment as couriers.[193]

People in isolated settlements

The large-scale displacement of people from Donetska and Luhanska oblasts due to the conflict has created many isolated settlements. The LoC separates urban centres in the NGCA from their peripheral towns and villages in the GCA, transforming areas that were once the outskirts of large cities into isolated, hard-to-reach areas. Such isolated settlements are fully or partially cut off from surrounding areas due to the contact line, checkpoints, landmine/unexploded ordnance (UXO) contamination and poor road conditions.[194]

People living in isolated settlements are among the most affected by the armed conflict. They are mainly elderly (41%), people with disabilities (13% of households) and people with chronic diseases. According to the REACH 2019 assessment of isolated settlements, 40% of households in isolated settlements reported challenges when accessing health care services. The ability of households to address basic health care needs is further exacerbated in rural areas, particularly due to the cost or unavailability of transport and the lack of ambulance services.[195]

In particular, findings from the recent protection monitoring of 16 isolated settlements along the LoC demonstrate that only ten out of 16 (or 63%) settlements had sufficient access to public transport, seven (44%) reported good mobile coverage, five (31%) had access to ambulance services and 16 (100%) settlements had neither pharmacies nor health posts through which they can receive medical assistance.[196] In addition, residents of isolated settlements experience higher levels of fear and anxiety, with 74% of households reporting feeling a periodic or constant threat to their lives during daytime hours, and a greater proportion (80%) during the night.[197]

[192] IOM, Results of the survey on awareness of human trafficking risks among vulnerable children and youth in Ukraine, 2019.
[193] Acaps Ukraine – Conflict in Donetsk and Luhansk Briefing note, 4 November 2019.
[194] REACH, Protection Assessment of Isolated Settlements in Government-Controlled Areas Along the Contact Line, February 2019.
[195] REACH, Protection Assessment of Isolated Settlements in Government-Controlled Areas Along the Contact Line, February 2019.
[196] UNHCR, 'Preliminary results of Protection Monitoring of Isolated Settlements in Donetska and Luhanska oblasts' (dataset).
[197] REACH, Protection Assessment of Isolated Settlements in Government-Controlled Areas Along the Contact Line, February 2019.

Health care workers

Health care workers in conflict-affected areas are often overloaded, understaffed and exposed to increased risks of psychological distress and mental health disorders as a result of witnessing traumatic events. As many qualified health care workers have left the region due to insecurity, those who remain often lack sufficient qualification and face tremendous pressure to maintain service provision despite limited resources, lack of essential equipment, deteriorating health care infrastructure and a lack of professional training opportunities.[198]

The COVID-19 pandemic has exacerbated the risk of burnout, while inadequate and outdated medical supplies and equipment have made them vulnerable to contracting infection.[199] As of 24 August 2021, there have been 4928 confirmed cases of COVID-19 among health care workers in Donetska and Luhanska GCA (3367 and 1561, respectively).[200] While compensations for health care workers and some social workers have increased, not all frontline staff receive them. Female frontline workers, especially single mothers, carry a major burden due to their additional domestic and care work responsibilities within their families.[201]

Internally-displaced people

Since the start of the armed conflict, people have been forced to flee their homes, with the biggest wave of internal displacement happening in 2014 and 2015. UNHCR estimates there are currently 854 000 IDPs in Ukraine.[202] As of mid-2021, 1.46 million IDPs in Ukraine were registered with the Ukraine government, of which roughly 54% were registered in Donetska and Luhanska oblasts (GCA).[203] The estimates of the number of IDPs differ between UNHCR and the government, as the government estimates include both persons who were forced to leave their places of origin or habitual residence due to the conflict, and persons who are not displaced and still live in their place of habitual residence in the NGCA.[204] In 2020, OCHA estimated that IDPs accounted for approximately 340 000 (20%) of the overall number of people in need in GCA. [205]

Table 32: Registered IDPs in Ukraine, Donetska oblast, and Luhanska oblast (GCA)[206]

	Number of IDPs	IDP Category (%)		
		Pensioners	Children	PwD
Ukraine	1 461 770	50	13	4
Donetska oblast	512 237	61	12	3
Luhanska oblast	282 493	72	8	3

The displacement has increased vulnerabilities, as IDPs often lack affordable accommodation or the documentation required to find employment. About 1000 IDPs live in collective centres in Donetska and Luhanska oblasts (GCA), and most residing in buildings or facilities that were designed as sanatoriums. IDPs in rural areas have limited access to healthcare facilities; 52% of

198 OCHA, Ukraine Humanitarian Needs Overview, February 2021.
199 OCHA, Ukraine Humanitarian Needs Overview, February 2021.
200 Ukraine Health Cluster, Bulletin #13, June-July-August 2021.
201 OCHA, Ukraine Humanitarian Needs Overview, February 2021.
202 UNHCR, Update of the methodology and estimation of population figures of Internally Displaced Persons (IDPs) in Ukraine, November 2021.
203 UNHCR, Registration of Internal Displacement in Ukraine, 5 March 2021.
204 UNHCR, Update of the methodology and estimation of population figures of Internally Displaced Persons (IDPs) in Ukraine, November 2021.
205 OCHA, Ukraine Humanitarian Needs Overview, February 2021.
206 UNHCR, Registration of Internal Displacement in Ukraine, 5 March 2021.

IDPs in villages reported that the lack of public transport stopped them visiting healthcare facilities, compared to 36% in urban areas. [207]

Mental health is one of the major health issues for IDPs. In one study, the overall prevalence among IDPs of depression was 25%, compared to 14% among the general population. Women are usually more affected than men. Some 20% of IDPs who suffer significant anxiety and depression have tried to obtain mental health support. IDPs have been particularly affected by family separation during the COVID-19 pandemic, as many have been unable to travel to NGCA to visit family and elderly relatives. The conditions associated with the pandemic have placed women and girls among the IDP population at a higher risk of violence from their intimate partners, and other forms of domestic violence. [208],[209]

4. Health Determinants

Water, sanitation and hygiene (WASH)

WASH needs have increased in 2021. The ongoing conflict continues to affect access to safe drinking water and sanitation services for 3.1 million people. Security incidents have damaged water treatment facilities, pipelines, and pumps and limit repairs to the aging system. In addition to individual consumption and hygiene, water is also an essential resource for electricity production and centralised heating in the area; 81% of heating in Donetska and Luhanska relies on water-based systems.[210] The COVID-19 pandemic has intensified the needs for water supply, solid waste and medical waste management, and hygiene.[211]

Water Supply

Donetska oblast is officially water scarce. The water supply systems, built in the1960s, are centralized and extremely inefficient. The state company Voda Donbassa owns the system – including treatment and transportation – supplying water to 3.9 million people. Most secondary water providers in the region buy water from Voda Donbassa to supply cities and small towns. The obsolete supply system creates financial strain through excessive power usage and repairs needed to fix equipment and corroded pipes.[212]

All water intakes are located in GCA, along the Siverskyi Donets River – the main water source in the region, leaving NGCA dependent on the GCA for water. Further downstream, the converse is true: Mariupol city is dependent on water sourced from NGCA. Whilst the water company in the government-controlled area bears the costs of water extraction, the defacto authorities maintain water tariffs that are artificially low in the NGCA, where most of the population lives. This has resulted in tensions, including disputes between parties across the 'contact line' regarding payments to the main water company, further leading to major utility cuts when the bills are not paid.[213]

Security Incidents

[207] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[208] UNFPA, Internally Displaced Women in Ukraine Face Abuse and Exploitation, September 2019.
[209] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[210] UNICEF, Water, sanitation and hygiene, accessed October 2021.
[211] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[212] UNICEF, Water, sanitation and hygiene, accessed October 2021.
[213] UNICEF, Water, sanitation and hygiene, accessed October 2021.

The overall trend for WASH-related security incidents is down on previous years, and has been fairly stable since July 2020. However, ongoing hostilities have significantly increased the damage to the system and interfered with utility companies' capacities to repair the damaged infrastructure. The number of incidents between January and June, 2021, was only about one quarter of those in the first half of 2020: only 13, compared to 48. During the first half of 2021, there were two key geographical zones where most incidents occurred:

- Near Toretsk (GCA) and Horlivka (NGCA) there were five incidents. These put at risk the Sieverskyi Donets-Donbas channel, a key water source for the region, the Horlivka Waste Water Treatment plant, and the drinking water pipeline from Horlivka Filter Station to Toretsk town.
- Close to Avdiivka (GCA) and Yasunuvata (NGCA), five incidents mainly affected the 1st Lift Pumping Station of the South Donbas waterway and pipelines to Verkhnetoretske village.

Two of the most critical risks to the water supply during the first half of 2021 were:

- on 8 January 2021, when a repair team from Voda Donbasu water company was repairing pipelines near Toretsk city, they experienced small arms fire and also believed they were under attack by grenade launchers. This incident represents a severe level of risk of injury to the civilian workers, and could have prevented repairs to a critical water pipeline which ensures access not only to drinking water but also heating, for the people of Toretsk city, during the winter. That incident was one of several in the same area, which led to the actual stoppage of water supply in Toretsk city, which has a population of 46 000, for nine days in January.
- on 7 and 8 May 2021, when the water supply of 3.1 million people in Donetsk region was put at great risk by repeated shelling of a key water conduit. The Siverskyi Donets—Donbas channel, supplies water to the whole Donetsk region for both sides of the LoC.[214]

Access to Water

As estimated 1.73 million persons (28% of the population) need assistance with access to adequate water supply in Donetska and Luhanska oblasts. Access to basic hygiene items continues to be an issue. According to a HelpAge Snapshot study in 2020, 71% of older people (67% of women) reported they had limited (90%) or no (10%) access to safe drinking water.[215]

Security incidents and repairs to infrastructure continue to impact access to water. The WASH cluster measures supply issues in terms of the number of people for whom water was stopped, and the duration of each stoppage; in the first half of 2021, there were 466 000 people-days of stoppages, down from the 3 900 000 in the first half of 2020.[216] Interruptions in water supply not only create additional costs for purchasing and transporting water, but also affects people's ability to maintain hygiene and livelihoods.[217]

In a Multi-Sector Needs Assessment (MSNA) conducted in July-August 2020 in GCA, 35% of households reported a lack of drinking water supply in the twelve months prior, with 6% reporting a lack of drinking water supply occurring on a daily basis. In urban areas within 5km of the LoC, 45% of households reported drinking water shortages. Due to the integrated infrastructure across the contact line, water shortages in urban areas, where people commonly rely on a centralised

[214] WASH Cluster Ukraine, WASH Cluster Alert Bulletin 01 January – 30 June 2021 Issue 16, 6 September 2021.
[215] OCHA 'Ukraine Humanitarian Needs Overview, February 2021.
[216] WASH Cluster Ukraine, WASH Cluster Alert Bulletin 01 January – 30 June 2021 Issue 16, 6 September 2021.
[217] Ukraine WASH Cluster, WASH cluster study of Humanitarian needs in Eastern Ukraine 2019, 24 November 2020.

system rather than a well or borehole, will likely remain a concern as long as shelling of critical infrastructure continues.[218]

In a February 2020 Multi-Sector Needs Assessment in NGCA, 94% of assessed households reported having access to improved water sources, but 37% reported that the reliability of the centralized water system has become worse since the beginning of the conflict.[219]

Water Quality

A 2020 study completed by People in Need observed that in addition to expectedly hard water, households in some areas experienced raised levels of lead in drinking water, while in other areas water at household level was polluted by nitrates, coliforms, or both, indicating potential cross contamination of the water network by local sewer networks.[220]

In the MSNA in July-August 2020, 41% of households reported treating their drinking water, an increase from 34% in 2019. Of households that reported not treating their water (59%), 85% reported there is no need, while 14% reported that they could not afford to treat it. Approximately 24% reported treating water by boiling, which is insufficient to address potential chemical contamination due to industry and farming.[221]

Sanitation

Focus Group discussions with WASH cluster partners identified that some households living near LoC still have problems with emptying their septic tanks, while others have no effective garbage removal, with some resorting to burning garbage. While burning garbage is a common practice around Ukraine, this practice has clear health and environmental impacts.

In an August 2020 survey, of the 64% of households who reported either having a pit latrine or a flush toilet with individual sewage, 13% reported they had faced problems because of the need to pump out their sewage; the highest proportion were in rural areas 0-5km from the LoC where 20% of households with a pit latrine or individual sewage (84%) reported such problems.[222]

According to March-April 2020 assessment of health facilities in GCA, 60% reported that they did not have proper medical waste disposal in place and that they disposed of medical waste in the normal garbage or burnt it without a proper incinerator.[223]

Hygiene

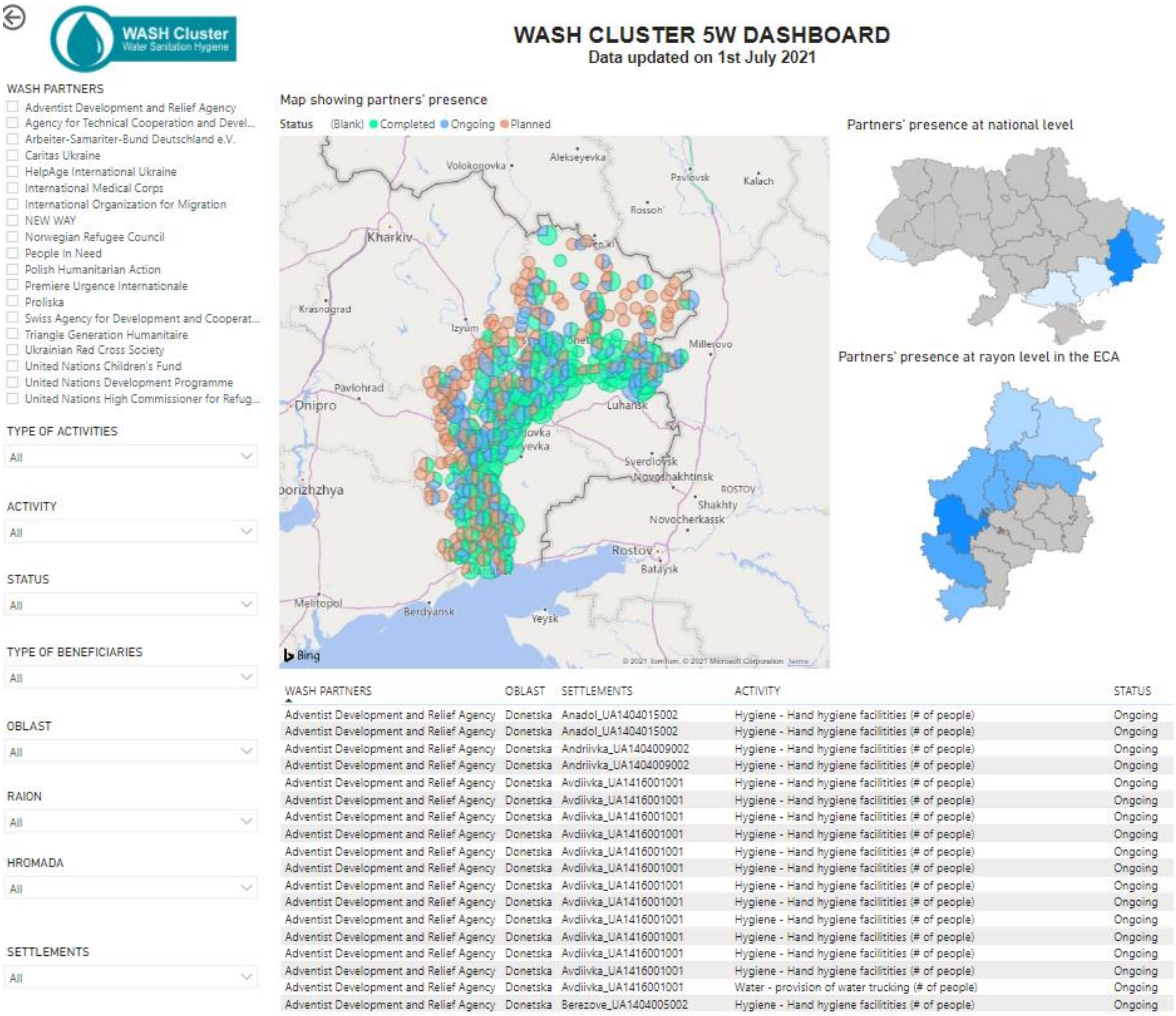
Hygiene has been a focus of attention with the COVID-19 response. According to a 2020 REACH survey, 77% of people in GCA report that they are protecting themselves from COVID-19 by washing their hands, while 86% of people know to wash their hands for 20 seconds or more. Comparing an August 2021 survey of the older population in GCA with one from 2020, more people couldn't afford to buy preventive products against COVID-19 (28% vs. 20%) and more

[218] REACH, Ukraine: Multisector Needs Assessment, May 2021
[219] REACH, Ukraine Multi-Sector Needs Assessment – Non-Government Controlled Areas of Donetsk and Luhansk Oblasts, February 2020.
[220] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[221] REACH, Ukraine: Multisector Needs Assessment, May 2021
[222] REACH, Ukraine: Multisector Needs Assessment, May 2021
[223] REACH, COVID-19 Preparedness: Rapid Health Facility Assessment, April 2020.

were in need of PPE (96% vs. 71%). The 2021 survey, reported 98.5% of older people require basic hygiene items.[224]

The WASH Cluster, led by UNICEF, has developed a 5W dashboard to visualize the activities of the humanitarian partners working in the WASH sector. An additional dashboard documents the achievements of the cluster partners within the previous half-year period.[225]

Fig. 6: WASH Cluster 5W Dashboard



Food security

Food and economic security have been measured using food consumption scores (FCS) through seven REACH surveys conducted between 2017 and 2020. The method consists of analysing household food consumption over a seven-day recall period, with more nutrient-intensive foods

224 HelpAge International, Humanitarian needs of older women and men in government-controlled areas of Donetska and Luhanska oblasts, Ukraine - Snapshot of baseline report, August 2021.
225 WASH Cluster Ukraine, WASH Cluster Ukraine 5W Dashboard, 1 October 2021.

being given a higher weight. Over time, the overall proportion of households found to have acceptable, borderline, or poor FCS has not been deteriorating.[226]

From the December 2020 REACH survey, households living in Luhanska were more likely to have poor or borderline FCS compared to households living in Donetska oblast. Large urban areas (28%) and urban areas (21%) had the largest proportion of poor or borderline FCS. Similarly, households residing in large urban areas of Luhanska oblast were more likely to report resorting to spending their savings on food (a stress level livelihood coping strategy) compared to the other areas. [227]

To assess food security with respect to distance from the LoC, a REACH Multi-Sector Needs Assessment was conducted in August 2020.[228] Within 20km of the LoC, a slightly higher proportion of households were found to experience food insecurity in the assessed area than in 2019. Overall, 12% of households were found to be moderately or severely food insecure, which is an increase from 8% in 2019.

Food security levels varied significantly between the assessed areas. Households residing in rural areas 0-5 km from the LoC were slightly more commonly found to be food insecure than urban households or those further from the LoC. The higher proportion of food secure households in urban areas may be due to access to functioning markets, while rural areas further from the contact line may reflect improved access to arable land due to reduced conflict incidence.

The increase in the proportion of households that were found to be moderately or severely food insecure since 2019 could be reflected in the noticeable increase in the proportion of household expenditure on food, 22% in 2019 and 49% in 2020. However, given that data collection was conducted shortly after the nationwide COVID-19 restrictions, it is more difficult to interpret food expenditure share in 2020.[229]

The Food Security and Livelihoods Cluster (FSLC), led by FAO, works to address issues related to food security and livelihood interventions.[230]

Shelter

Conflict-related damage to infrastructure, including residential structures, continues to be a risk in areas experiencing active conflict. In the first half of 2021, 151 houses were damaged, 67% of which were on the NGCA side of the contact line.[231] Of the 93% of non-displaced households surveyed in a 2019 study, one-quarter (25%) reported that their primary shelter was damaged at some point due to the conflict. However, the majority of such damage reportedly occurred in 2014 and 2015 (84%).[232] Households in rural areas 0-5 km from the LoC most commonly reported

[226] Note: this survey also contains data from Mariupol.
[227] USAID/REACH, Ukraine: Economic Resilience Assessment, April 2021.
[228] REACH, Ukraine: Multisector Needs Assessment, May 2021.
[229] REACH, Ukraine: Multisector Needs Assessment, May 2021.
[230] Food Security Cluster, About, accessed October 2021.
[231] Shelter Cluster Ukraine, Q2 Report 2021, 17 August 2021; Shelter Cluster Ukraine, Q1 Report 2021, 2 June 2021.
[232] REACH, Ukraine: Analysis of Humanitarian Trends, July 2019.

conflict-related damage to their shelter (47%) and having to relocate due to the damage (11%), in a 2020 study.[233] Shelter Cluster assessments suggest damage reports may be overestimated.[234]

Assistance from the state and the humanitarian community over the last seven years have led to a significant reduction of humanitarian shelter needs in both GCA and – to a lesser extent – NGCA. In GCA, 2020 marked the last year of emergency shelter assistance. For the first time since the start of the response, state actors - primarily the State Emergency Service of Donetska oblast - were the main responders.[235] Out of the over 55 000 residential buildings damaged by military activities on both sides of the LoC, it is estimated that as of the end of 2020, 200 households in GCA and 3924 in NGCA continue to have a humanitarian need for repair of their homes. Significant gaps remain in areas with high insecurity and limited physical access.[236]

The COVID-19 pandemic has caused delays in conducting shelter repairs due to movement restrictions, but has also intensified the need to make those repairs. Since the start of the pandemic, many people, especially older persons, have been confined to their homes to self-isolate or quarantine, highlighting the need to improve the condition of homes damaged in the conflict.[237]

The severe winter weather in Ukraine is a health threat, making winterization of dwellings a high priority. An assessment by the Shelter Cluster identified isolated settlements along the LoC in GCA as a priority of their 2021-2022 winterization response. In the 45 identified locations, 2301 households were found in critical need of winterization support. Current partners' programmes plan to cover only 2/3 of the critical needs.[238]

Disruption of central heating and electricity supply increases vulnerability, particularly during winter. Approximately 81% of the affected population relying on water-based heating (38% use central heating while 43% use personal boilers). As mentioned in the WASH section above, water stoppages are common. In rural areas, a higher proportion of households use wood or coal for heating. Nearly half of households (46%) reported having experienced electricity shortages in the 30 days prior to data collection in the August 2020 survey, although 38% reported such shortages were infrequent.[239]

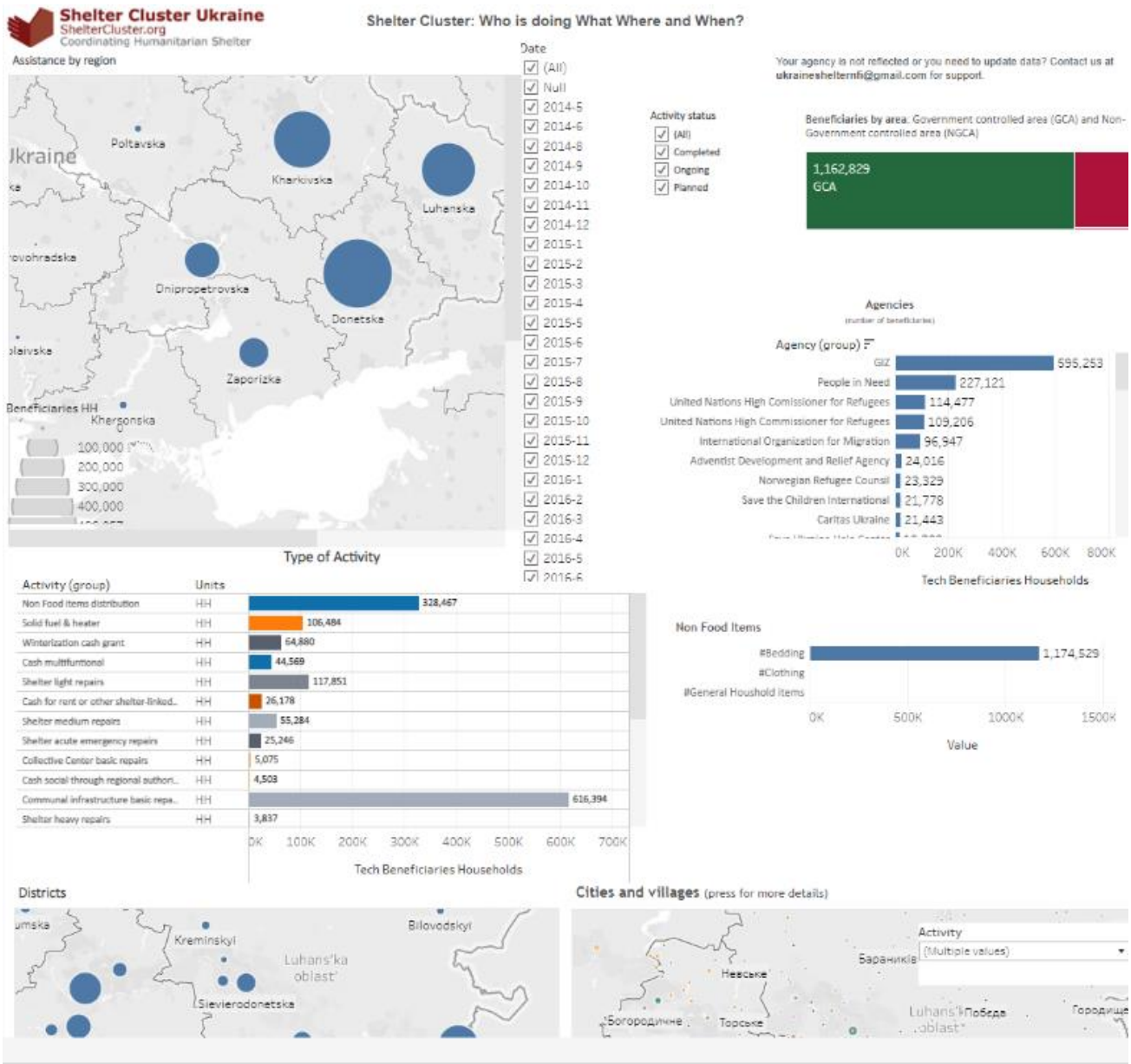
Older persons in the conflict-affected oblasts are in particular need of Shelter/NFI assistance. In an August 2021 assessment of the needs of older women and men living in the GCA of Donetska and Luhanska oblasts, 49% of older people reported having accommodations fully suitable for living both in summer and winter weather.[240]

From September-October 2020, unprecedented wildfires in Luhanska oblast destroyed almost 600 houses. The government is still responding to needs in the area.[241]

[233] REACH, Ukraine: Multisector Needs Assessment, May 2021
[234] Shelter Cluster Ukraine communication, November 2021.
[235] Ukraine Shelter Cluster, Ukraine Shelter Cluster 2020 Annual Report, 29 April 2021.
[236] OCHA, 'Ukraine Humanitarian Needs Overview', February 2021.
[237] OCHA, 'Ukraine Humanitarian Needs Overview', February 2021.
[238] Shelter Cluster Ukraine, Q2 Report 2021.
[239] REACH, Ukraine: Multisector Needs Assessment, May 2021
[240] HelpAge International, Humanitarian needs of older women and men in government-controlled areas of Donetska and Luhanska oblasts, Ukraine - Snapshot of baseline report, August 2021.
[241] Bezruk, Tetiana, Climate change, war and forest fires in eastern Ukraine, 14 July, 2021.

The Shelter Cluster, led by UNHCR, has developed a 4W dashboard to visualize the activities of the humanitarian partners working in the shelter sector.[242]

Fig. 7: Shelter Cluster 4W Dashboard



Security

The active conflict in Donetska and Luhanska oblasts presents critical protection risks due to severe mine and explosive remnants of war (ERW) contamination, systematic shelling close to civilian property and utility infrastructure, and heavy presence of military in densely populated areas.[243]

[242] Shelter Cluster Ukraine, Who is doing what where and when?, accessed October 2021.
[243] REACH, Ukraine: Multisector Needs Assessment, May 2021

For several months after the ceasefire of 27 July 2020, armed violence substantially decreased to the lowest levels since the beginning of the conflict.[244] Between March and April 2021, widespread ceasefire violations significantly increased along the 428km of the contact line. The number of violations jumped from 2824 in March to 9485 in April and have remained high. From April to June 2021, most of the armed violence recorded was concentrated in four hotspots along the contact line, which accounted for about 77% of all recorded ceasefire violations: Avdiivka-Yasynuvata-Donetsk airport area, Popasna-Zolote-Pervomaisk area, and the western and northern outskirts of Horlivika.[245] Between July and August, several negative security-related trends continued to be observed, including the intensification of artillery and mortar use, the doubling of civilian casualties, and the increased frequency of incidents against civilian infrastructure and within the disengagement zone.[246]

Around two million people are exposed to the threat of landmines and ERW in eastern Ukraine on both sides of the LoC. Ukraine ranks fifth in the world for civilian landmine and ERW casualties, and in the top three for antivehicle landmine accidents. The Organisation for Security and Cooperation in Europe's Special Monitoring Mission to Ukraine (OSCE SMM) have observed more than 10 000 land mines on both sides of the contact line since 2018. Mines and ERWs are also the leading cause of civilian deaths since 2017.[247] The ECA is one of the most mine-contaminated regions in the world.

Current restrictions on humanitarian actors do not allow implementation of a range of protection programmes in the NGCA. For example, mine action, explosive ordnance risk education, psychosocial support, GBV prevention and response, cannot be implemented, which limits access to humanitarian assistance for people residing in NGCA.[248]

The Protection cluster, led by UNHCR, has developed a 5W dashboard to visualize the activities of the humanitarian partners working in the protection sector.[249]

[244] OSCE, 2020 Trends and observations from the Special Monitoring Mission to Ukraine, 28 January 2021.
[245] OSCE, April-June 2021 Trends and observations from the Special Monitoring Mission to Ukraine, 19 August 2021.
[246] OCHA, Ukraine: Humanitarian Snapshot: August 2021, 31 August 2021.
[247] REACH, Ukraine: Multisector Needs Assessment, May 2021
[248] OCHA, 'Ukraine Humanitarian Needs Overview', February 2021.
[249] Protection Cluster Ukraine, Protection Cluster Ukraine 5W - activities conducted from 1 January - 30 September 2021.

Fig. 8: Protection Cluster 5W Dashboard

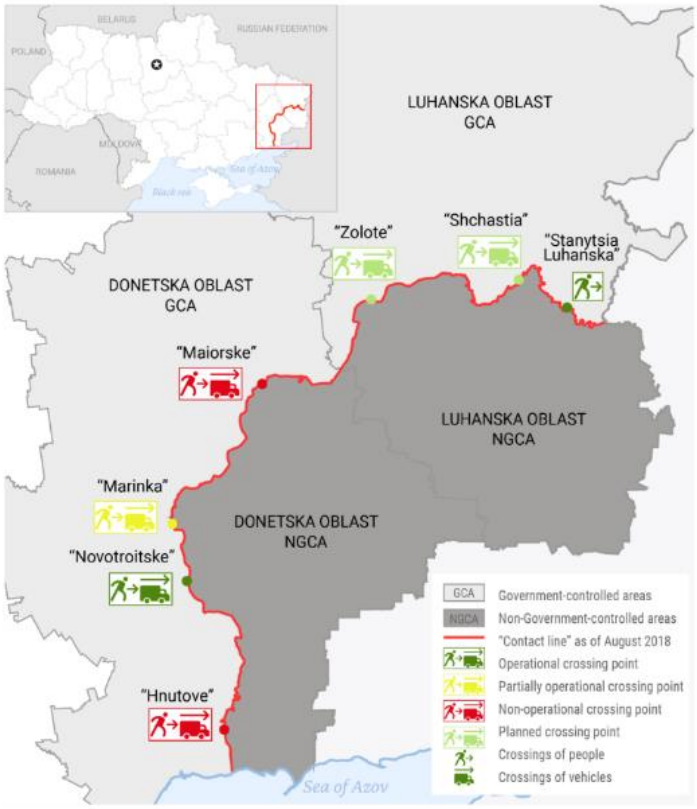
Restriction of movement

Since the beginning of the armed conflict, access to the affected population has been subject to the dynamics of the conflict, the intensity of military confrontations, political and diplomatic achievements, and have now also been impacted by the COVID-19 pandemic.[250]

For the past several years, five Entry-Exit Check Points (EECPs) have enabled civilian pedestrians and vehicles to cross the 427km long line of contact (LoC) between areas in Donetska and Luhanska oblasts controlled by the Ukrainian government (GCA) and the Russia-backed separatists (NGCA).[251] In November 2020, two new EECPs opened in Luhanska, one in the town of Shchastia and the other in the town of Zolote.[252] UNHCR maintains a monitoring dashboard for the checkpoints.[253]

[250] OCHA, 'Ukraine Humanitarian Needs Overview', February 2021.
[251] USAID, Human Rights in Eastern Ukraine during the coronavirus pandemic, 9 Nov 2020.
[252] UNHCR, EECP Survey – 2020 Annual report, May 2021.
[253] UNHCR, Eastern Ukraine EECP Checkpoint Monitoring, 2021.

Fig. 9: EECPs in Eastern Ukraine



A map of eastern Ukraine divided by the 427-kilometre-long "contact line".

Source: OCHA, 2021[254]

Temporary restrictions put in place by the Government of Ukraine and entities in control of NGCAs in March 2020 to contain the spread of COVID-19 have prevented hundreds of thousands of people from travelling across the LoC to access essential services (e.g., recover a pension, access health care, withdraw cash,) and maintain social connections with the other side. Due to these restrictions, thousands of people have been forced to take longer, more expensive and legally challenging routes through the territory of the Russian Federation (Russia) to reach GCA.[255]

Movement restrictions have eased since the start of the pandemic, but are still very limited. Since June 2021, NGCA residents have only officially been able to enter GCA via two of the seven EECPs along the contact line. The NGCA de facto authorities are still keeping the other five closed as a preventive measure against COVID-19.[256] As of 23 October 2021, Stanytsia Luhanska" EECP in Luhanska oblast is open daily and "Novotroitske"/ "Olenivka" in Donetska oblast is open on Mondays and Fridays.[257]

[254] OCHA, Ukraine Situation Report, 21 September 2021.
[255] OCHA, Ukraine Situation Report, 9 September 2021.
[256] UNHCR, Right to Protection, Going around the contact line, 1 October 2021.
[257] OCHA, Ukraine Situation Report, 21 September 2021.

The crossing of the LoC remains particularly challenging in Donetska oblast. People seeking to cross must obtain permission from the entities in control of Donetska oblast, but this permission is only granted in exceptional humanitarian circumstances and has led to a drastic drop in crossings within the oblast. In August 2021, the level of crossings through the only officially operational EECP in the oblast, "Novotroitske", represented 6% (5812 individual crossings) of the total number of LoC crossings (90 751). In August 2019, before the pandemic, the level of crossings through four operational EECPs in Donetska oblast represented 75% of the total number of crossings. Overall, the number of LoC crossings in August 2021 was only 7% of the August 2019 figure, when 1.3 million civilian crossings had been recorded.

After relaxing entry requirements in June 2021, on 5 August the Government re-established COVID-19-related requirements for entry into GCA. To travel to GCA through the LoC, individuals intending to cross are required to install a mobile tracking app Dii Vdoma and undergo a 10-day self-quarantine, which must start within 72 hours after crossing. The self-quarantine requirement can be terminated based on a negative result of a SARS CoV-2 PCR or antigen test performed during the crossing. Those who cannot install the mobile tracking app must agree to remain for observation in a designated facility for the quarantine period, which can also be terminated after receiving a negative SARS CoV-2 test. The self-isolation requirement does not apply to some categories of people, which include employees of international missions and organizations accredited in Ukraine. Individuals who can confirm receiving at least one dose of a WHO-approved vaccine or who cross the LoC for vaccination purposes (confirmed by a unique identifier from a vaccination centre) are exempt from the self-quarantine requirement.[258]

Table 33: Number of crossings by checkpoint in September and from Jan-Sep 2021[259]

Location	September Crossings	% Change from Aug 2021	% Change from Sep 2020	Jan - Sep 2021	% Change from Jan-Sep 2020
Stanytsia	66 255	-22	-20	500 059	-47
Novotroitske	3693	-37	44	27 050	-95
Marinka	22	100	10	126	-100
Mairoske	0	0	0	1	-100
Hnutove	0	0	0	0	0
Total	**69 970**	**-23**	**-18**	**527 236**	**-82**

In June 2021, the entities in control in the NGCAs of Donetska and Luhanska oblasts reportedly lifted the ban on travelling between the two NGCAs. Moreover, from 1 October 2021, the so-called customs control points between the two NGCAs are reported to have been abolished, potentially improving the freedom of movement for local residents.[260]

In NGCA, access for the delivery of humanitarian assistance and for the movement of staff has been extremely limited since July 2015 when most aid agencies were asked to leave NGCA following the introduction of extensive bureaucratic restrictions for humanitarian operations. In GCA, the main restrictions to movement in the past year have been due to public health and social measures related to the pandemic.[261]

[258] OCHA, Ukraine Situation Report, October 2021.
[259] UNHCR, Ukraine Checkpoints: people's monthly crossings, accessed October 2021.
[260] OCHA, Ukraine Situation Report, October 2021.
[261] OCHA, Ukraine Humanitarian Needs Overview, February 2021.

5. Health system needs

Disruption of key health system components

Various disruptions of the local health system continue to affect delivery of preventive and curative health services. These are summarised in Matrix 3 below.

DISRUPTION				
Months starting now	**1**	**2**	**3-6**	**6-12**
Access to health care				
Disrupted management				
Reduction in financing				
Inability of non-state providers to maintain services				
Supply (including pharmaceutical) chain disruption				
Degraded alert and response				
Health workforce disruption				
Damage to health facilities				
Attacks against health				

Red: The majority of the health system feature / health service has been or could be rendered non-functional. Most people / patients do not have access to health care. A major reduction in health service coverage or quality could occur.

Orange: A substantial minority of the health system feature / health service has been or could be rendered non-functional. A substantial minority of people / patients do not have access to health care. A moderate reduction in health service coverage or quality could occur

Yellow: A small minority of the health system feature / health service has been or could be rendered non-functional. A small minority of people / patients do not have access to health care. A small reduction in health service coverage or quality could occur

Green: The vast majority or entirety of the health system feature / health service is very probably still as functional as before the crisis. No risk factors for reduction in health service coverage or quality have been identified

Grey: No plausible assessment can be made at this time

Access to health care

People living in the conflict-affected areas of Donetska and Luhanska face many barriers to accessing health care: barriers that are common throughout Ukraine, those specific to the region and impacted by the conflict, and those imposed by the COVID-19 pandemic response.

Barriers common throughout Ukraine

USAID conducted an assessment of patient barriers to care in the GCA of Eastern Ukraine from January-March 2021.[262] From their study, the barriers they found that were similar throughout the

[262] USAID, Ukraine: Assessment of Patient Barriers to Health Care in the Conflict-Impacted Areas of Eastern Ukraine, 2021.

country were poor signage at health care facilities, low health literacy, lack of trust in health care providers, poor attitude of providers, lack of knowledge on health reforms and how to seek care, informal payments, lack of money to pay for healthcare, insufficient patient adherence, and low digital literacy.

Barriers specific to the conflict-affected area

The barriers identified by the USAID assessment as specific to the conflict-affected area included: insufficient provider outreach and information-sharing, safety concerns at health facilities, health workforce shortages, lack of specialized beds and equipment, inadequate health care facility density, few disability accommodations, limited remote options, poor road/transport conditions, increased costs due to poor roads, poor patient satisfaction, inadequate information systems, and poor specialized health care outcomes.[263]

In a survey conducted in August 2020, of the households with at least one member who tried to access healthcare in the twelve months prior to data collection (56%), 76% reported difficulties accessing healthcare, up from 54% in 2019 and 53% in 2018 in similar assessments.[264] Households living in rural areas within 5km of the LoC were most likely to report access issues (87%, up from 64% in 2019). The most frequently cited access issues were the cost of medicine (85%, up from 2019, 2018 and 2017), the distance to a health care facility (50%), and the cost of travel to a facility (36%). Of note, 38% of households reported reducing spending on essential health care as a coping strategy,[265] the same proportion as in 2019.[266] Access to mental health services was also reported to be challenging; 24% reported being able to access mental health services if needed.[267]

The USAID study highlighted the comparatively low ratio of primary health care facilities to the population in the GCA regions of the ECA: Donetska had 1.89 facilities per 100 000 population and Luhanska 3.02, whereas across Ukraine the ratio was higher at 4.42.[268] According to the REACH survey conducted in 2019 in isolated settlements, 100% (16) of the settlements had neither pharmacies nor medical centres where they could receive medical care.[269] In MdM's pharmacy assessment among vulnerable settlements in Luhansk oblast (GCA) conducted in March 2021, only 33% of locations had a pharmacy or a pharmacy outpoint. [270]

The limited availability of public transport, damage to road infrastructure, and restricted movement through military checkpoints create challenges to reaching health care facilities. Restrictions of movements also mean that ambulances have restricted access to many settlements near the contact line, and are generally insufficient in rural areas throughout the region. It is estimated that 20% of rural settlements along the LoC are currently not served by ambulances.[271] Implementation of telemedicine, as a means to counteract the physical barriers to care, has been slow. In a 2021 assessment, health care facilities in Donetska and Luhanska

[263] USAID, Ukraine: Assessment of Patient Barriers to Health Care in the Conflict-Impacted Areas of Eastern Ukraine, 2021.
[264] REACH, Ukraine: Analysis of Humanitarian Trends, July 2019.
[265] REACH, Ukraine: Multisector Needs Assessment, May 2021
[266] REACH, Ukraine: Analysis of Humanitarian Trends, July 2019.
[267] REACH, Ukraine: Multisector Needs Assessment, May 2021
[268] USAID, Ukraine: Assessment of Patient Barriers to Health Care in the Conflict-Impacted Areas of Eastern Ukraine, 2021.
[269] REACH, Protection Assessment of Isolated Settlements in Government-Controlled Areas Along the Contact Line, February 2019.
[270] Médicos del Mundo, Impact of Health Reform on the Primary Healthcare Level in Conflict-Affected Areas of Donetsk and Luhansk Oblasts, June 2021.
[271] OCHA, Ukraine Humanitarian Needs Overview, February 2021.

oblasts lacked the technology, Internet, and digital literacy of health workers to conduct telemedicine consultations.[272]

Two vulnerable groups, older persons and PwD, compose a greater proportion of the population in GCA of Donetska and Luhanska than in other regions and face greater barriers to accessing health care.[273] Roughly 87% of elderly people in GCA have limited mobility and require assistive devices. Older persons and PWDs also rely heavily on their pensions, which are rarely enough to cover their day-to-day needs, and the situation is even worse for those living in conflict-affected areas, particularly for those in the NGCA who have to cross the LoC to collect their pensions.[274]

Access to the health care at the Exit-Entry Check Points (EECPs) has been improved in 2020 and 2021 to support the people, mostly elderly, queuing to cross. During the first four months of 2019, 25 persons died at the EECPs due to health complications. In 2020, the Government of Ukraine opened new service centres at the Novotroitske and Shchastia EECPs, which included a medical point with ambulance services, a COVID-19 testing point and adequate sanitary facilities.[275] A service centre is under construction at the EECP Stanytsia Luhanska.[276] Should hospitalization be necessary; however, the nearest medical facilities are still 20-40 km away from the checkpoints. Previously, limited medical assistance was provided at EECPs by humanitarian actors.[277]

Barriers imposed by the COVID-19 pandemic

The COVID-19 pandemic has made the health system more fragile and more inaccessible to patients. Healthcare facilities have had to shift available resources and trained personnel to the COVID-19 response. This has limited other essential medical services, including HIV/AIDS and tuberculosis treatment, safe delivery and new-born childcare, routine childhood vaccinations, dialysis and treatment of other chronic diseases requiring continuous care in health facilities. The medical workforce, already depleted by those who left due to the conflict, is further reduced when staff are unable to work due to developing COVID-19 themselves or adhering to public health and social measures. When patients do access health care, many staff are overworked and lack adequate training.

Public health and social measures also create barriers for patients. Self-isolation and quarantines reduce people from accessing routine and emergency care. In rural areas along the LoC, access to first aid stations is extremely difficult during periods when public transport suspends services in accordance with COVID-19-related measures. Despite being at greater risk for COVID-19, 79% of older women and men surveyed could not afford to buy preventive products against COVID-19 (soap, antiseptics, medical masks, latex gloves etc.).[278] At EECPs, people who do not have or are unable to use smartphones have been disadvantaged. When the crossing points partially resumed their operations on 10 June 2020, the requirement to use a smartphone app to monitor self-isolation made crossing more difficult for people without smartphones or an internet

[272] USAID, Ukraine: Assessment of Patient Barriers to Health Care in the Conflict-Impacted Areas of Eastern Ukraine, 2021.
[273] USAID, Ukraine: Assessment of Patient Barriers to Health Care in the Conflict-Impacted Areas of Eastern Ukraine, 2021.
[274] WHO EURO, Access to health-care services for older persons and persons with disabilities living in Eastern Ukraine along the Line of Contact, 2021.
[275] OCHA, Ukraine - Humanitarian Response Plan 2021, 15 Feb 2021.
[276] Ministry for regeneration of the Temporary Occupied Territories, Construction works of the multifunctional service zone have been launched at the EECP Stanytsia Luhanska, 18 May 2021.
[277] Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
[278] HelpAge International, Humanitarian needs of older women and men in government-controlled areas of Donetska and Luhanska oblasts, Ukraine - Snapshot of baseline report, August 2021.

connection. People crossing into GCA who did not have a smartphone or were unable to download the "Dii Vdoma" app were required to quarantine in a designated facility for 14 days or until they receive a negative COVID-19 test result.[279],[280]

Disrupted management

'The Decentralization Reform' was initiated in 2014 by the national government and has impacted heath care management. The reform essentially passes numerous functional and managerial powers from the national government to the regional and local levels.[281] Regional and local health authorities are now responsible for health care facilities in their territory and are functionally subordinate to the Ministry of Health, but managerially and financially answerable to regional and local government.[282] Local authorities became the administrators of the network of medical institutions and in charge of the quality and availability of medical services.[283]

In an analysis of the impact of the decentralization on health care in Doneska and Luhanska oblasts published by Médecins du Monde (MdM) in June 2021[284], several key issues were identified causing disruptions to health care management:

1. The long process of transferring the ownership of health and social facilities from former raions (district) to communal ownership of newly created raions and Amalgamated Territorial Communities (ATCs)
2. The poor understanding of local authorities and health care facilities of their obligations related to the provision of services
3. The re-arrangement of Primary Health Care (PHC) provider agreements
4. The refusal of local authorities to cover utility costs from Primary Medical Sanitary Aid Centres (PMSAC) or maintenance costs of outpatient clinics, feldsher-midwife points (FAP) and feldsher points (FP)
5. The lack of financial resources of local authorities
6. The complicated process of establishing ATCs at the LoC in Luhanska and Donetska oblasts
7. The insufficient accountability and transparency of local authorities and lack of comprehensive targeted health programmes
8. The restricted ability of doctors to participate in local health care programmes as private entrepreneurs
9. The difficulties in creating an efficient network of PHC facilities

Recent heath care reforms have also been implemented that have impacted health care management in the region. In October 2017, a new health financing law was passed making a shift from financing a medical institution to financing (the services provided to) the patient.[285], [286] On 1 April 2018, the Government of Ukraine established a new single purchasing agency, the National Health Service of Ukraine (NHSU). The NHSU is a national insurance agency providing coverage for a set of explicit benefits for the population within the available fiscal space. The NHSU was established to begin strategic purchasing with health care providers meeting the requirements for services stipulated in the benefit package – the Programme of Medical

[279] OCHA, Ukraine Humanitarian Needs Overview, February 2021.
[280] Protection Cluster Ukraine, Factsheet, August 2021.
[281] Médicos del Mundo, Role of the decentralization reform, June 2021.
[282] Lekhan VN, Rudiy VM, Shevchenko MV, Nitzan Kaluski D, Richardson E. Ukraine: Health system review. Health Systems in Transition, 2015; 17(2):1–153.
[283] Médicos del Mundo, Role of the decentralization reform June 2021.
[284] Médicos del Mundo, Role of the decentralization reform June 2021.
[285] Netherlands Enterprise Agency, Health Care in Ukraine, March 2019.
[286] Médicos del Mundo, Impact of Health Reform on the Primary Healthcare Level in Conflict-Affected Areas of Donetsk and Luhansk Oblasts, June 2021.

Guarantees Programme (PMG). The PMG includes the following health care service packages: PHC including drug reimbursement, specialized and highly-specialized care, emergency, palliative care, rehabilitation and COVID-19.[287]

Reduction in financing

In USAID/UKAID's 'Analysis of Secondary Health Care (SHC) and Emergency Care (EC) delivery in selected raions of Donetska and Luhanska oblasts', the amount of funding received by selected Secondary health care facilities from local authorities decreased by UAH 9.7 million in 2020 vs. 2019.[288]

Inability of non-state providers to maintain services

No reports could be found on the disruption services of non-state providers in GCA.

People in NGCA are particularly hard to reach due to logistical constraints and administrative requirements imposed by separatist authorities.[289] The ability of non-state providers to maintain services in the NGCA is contingent on access through the EECPs. As of 30 September 2021, only two out of seven entry-exit crossing points (EECPs) continue to operate.[290]

Supply (including pharmaceutical) chain disruption

During armed conflict, medical supply chains often break down, creating shortages of medicines, medical commodities, and basic medical equipment. This disruption in the medical supply chain leads to the use of sub-standard medicines and equipment. In NGCA, restricted movement of goods, including medical supplies and equipment, compels many to travel across the contact line to purchase needed medication in GCA. Humanitarian agencies operating in NGCA report shortages of medication for diabetes, cardiovascular conditions, cancer, and other NCDs. Currently, many health care facilities in both GCA and NGCA of Donetska and Luhanska oblasts experience limited access to surgical supplies, anaesthetics, safe blood products, and lifesaving medicines. Lack of medicines and medical supplies has serious consequences not only for patients, but also for health care workers.[291]

Due to funding problems associated with the government decentralization process, medicines purchased at the expense of the raion (tuberculin, medicines for emergency care FAPs and outpatient clinics) ran out in the medical institutions of Stanytsia-Luhanska Raion in early 2021.[292]

Additional data on the availability of medical equipment and supplies is needed in Donetska and Luhanska oblasts.

Degraded alert and response

Ukraine already had weak systems for medical data collection and evidence generation before the conflict, and it has not improved. Without the necessary evidence and data, it is difficult to

[287] WHO Euro/World Bank, Ukraine review of health financing reforms 2016-2019, 2019.
[288] USAID, Analysis of SHC and EC delivery in selected raions of Donetska and Luhanska oblasts, 4 August 2021.
[289] Acaps Ukraine – Conflict in Donetsk and Luhansk Briefing note, 4 November 2019.
[290] Protection Cluster Ukraine, Factsheet, August 2021.
[291] Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
[292] Médicos del Mundo, Role of the decentralization reform June 2021.

make decisions about where to target medical resources and which interventions to prioritize. These gaps also undermine the ability to monitor the quality and effectiveness of the services provided to ensure health care actors are accountable to the people they assist.[293]

Health workforce disruption

Attracting and retaining health care workers is critical to a health care system's functioning. During a conflict, health care workers are overburdened and overworked, at risk of contracting infectious diseases due to inadequate medical supplies or equipment and often witness potentially traumatizing events. Given these challenges, many health care workers have left eastern Ukraine, leading to health care worker shortages. In the locations near the LoC, there is a shortage of medical staff (from 20% to 40% depending on the settlement), while about 60% of available primary care physicians are of pre-retirement and retirement age.[294]

The shortage of specialized health care staff is of particular concern, as many of the remaining health care workers lack training, experience, and the specialized skills which are needed to treat patients with trauma and medical complications. As a result, health care workers take on practices beyond the scope of their training and knowledge.[295]

The COVID-19 pandemic has added to the workforce disruption; health care workers who become infected with COVID-19 or are a contact of a case are forced to isolate/quarantine, while long-term illness and deaths have longer lasting effects on the available workforce, placing further strain on those who remain.

Damage to health facilities

Armed conflict adversely affects health care infrastructure through damage or disrepair due to lack of maintenance. The facilities that sustain damages or fall into disrepair end up shutting down or reducing services. The impairment of the health care infrastructure in eastern Ukraine is significant, especially in rural areas. About 35% of primary health care facilities have sustained damage as a result of hostilities, and an unknown number are in disrepair due to lack of maintenance. Vital infrastructure is interconnected, and damage to one type impacts others. For example, disruption in electricity supply affects water supply and functionality of health care facilities. Mapping precise health care infrastructural damage resulting from military engagements is challenging, and it is unknown how many are falling into disrepair due to lack of maintenance.[296] According to an assessment conducted in July and August 2020 by MdM, 57.9% of health care facilities near the LoC in Popasna, Stanytsia Luhanska, and Bakhmut Raions were damaged due to the conflict, and 94.7% required restoration.[297]

[293] Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
[294] Médicos del Mundo, Impact of Health Reform on the Primary Healthcare Level in Conflict-Affected Areas of Donetsk and Luhansk Oblasts, June 2021.
[295] Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
[296] Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
[297] Médicos del Mundo, Health and Social Needs Assessment in Selected Communities of Donetsk and Luhansk Oblasts, July-August 2020.

Table 35: Damage to health facilities in Donetska and Luhanska oblasts (GCA), HeRAMS 2017

Status	Health Facilities in Donetska (%)	Health Facilities in Luhanska (%)
Not Damaged	69	71
Partially damaged by long usage	26	27
Partially damaged by hostilities	2	1
Totally damaged	1	1
Not relevant	1	<1

Attacks against health workers?

There have been two recorded attacks against health in the last two years. An attack on Mariinsky Central District Hospital in Krasnohorivka, Donetska oblast took place at night from 4 to 5 May 2021. The city is located in close proximity to the Line of Contact (0-5 km Government-controlled areas). The windows in one building, the ambulance station, and the ambulance were damaged. The hospital was left without light due to a damaged power line.[298] The hospital is a COVID-designated facility; at the time of the attack, there were 45 patients in the hospital, of which 38 were patients with COVID-19 in need of oxygen therapy. From the start of the conflict in 2014, the health facility has periodically suffered from artillery shelling.[299]

On July 13, 2020, near Zaitseve, in Donetska oblast, Russian occupational forces attacked a group of three Ukrainian servicemen who were trying to evacuate the body of Ukrainian soldier, who had been killed by the blast of an unknown explosive device. As a result, one military medic was killed while two other servicemen were wounded in action.[300]

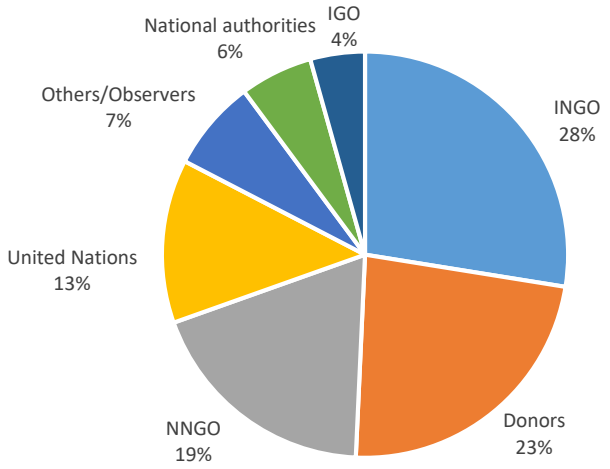
6. Humanitarian health response

Health response organization / coordination

The Health Cluster, led by WHO, currently links 69 partners (NGOs, UN agencies, national authorities, donors, and observers) engaged in the humanitarian health response in Ukraine.[301],[302] The Health Cluster secretariat gathers and disseminates relevant information to guide partners' response; identifies and addresses gaps in technical knowledge to ensure global best practices and standards are followed; and promotes and advocates for humanitarian health action.

[298] Deutsche Welle, The shelling of a hospital in Krasnohorivka: police are investigating a terrorist attack, 5 May 2021.
[299] OSCE Special Monitoring Mission to Ukraine (SMM) Daily Report 221/2021, 21 September 2021.
[300] OSCE, 2020 Trends and observations from the Special Monitoring Mission to Ukraine, 28 January 2021.
[301] Ukraine Health Cluster, Bulletin #13, June-July-August 2021.
[302] WHO, Health Cluster: About Us, accessed October 2021.

Fig. 10: Health Cluster Partners[303]

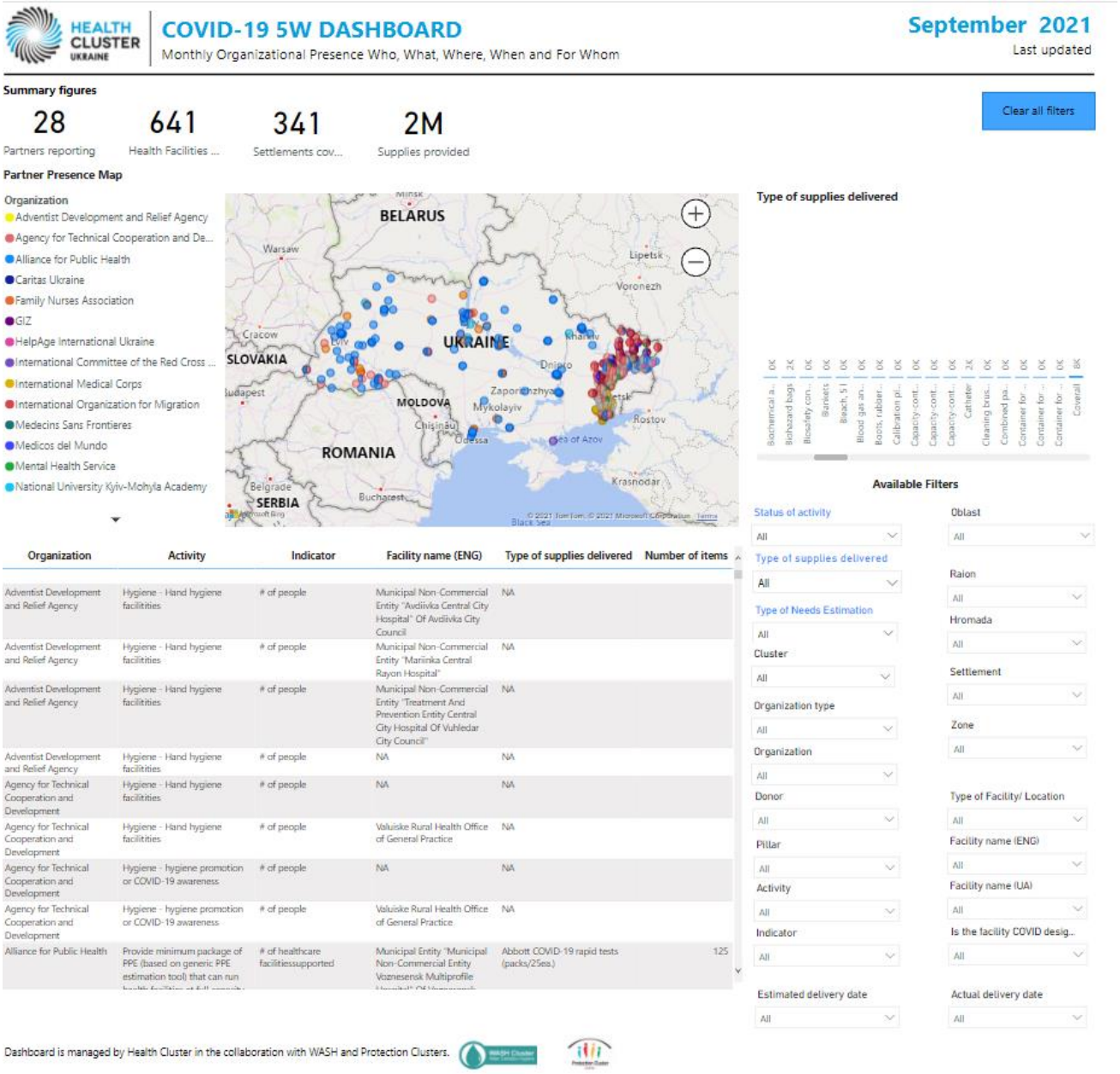


Health Cluster Ukraine maintains two dashboards to visualize the operational presence and activities of humanitarian health sector partners in Ukraine by reporting period and location. The COVID-19 5W Dashboard reports the organizational presence of Who, What Where When and For Whom, outlining the partners participating in the COVID-19 response (see below). There are 13 humanitarian health sector partners operating in Donetska oblast and ten in Luhanska oblast, as of September 2021.[304]

The Health Cluster Ukraine 5W Dashboard reports the monthly organizational presence of Who, What Where When and For Whom, outlining the health sector partners implementing activities in Ukraine. As of June 2021, 14 partners reported activities in Donetska oblast and eleven in Luhanska oblast.[305]

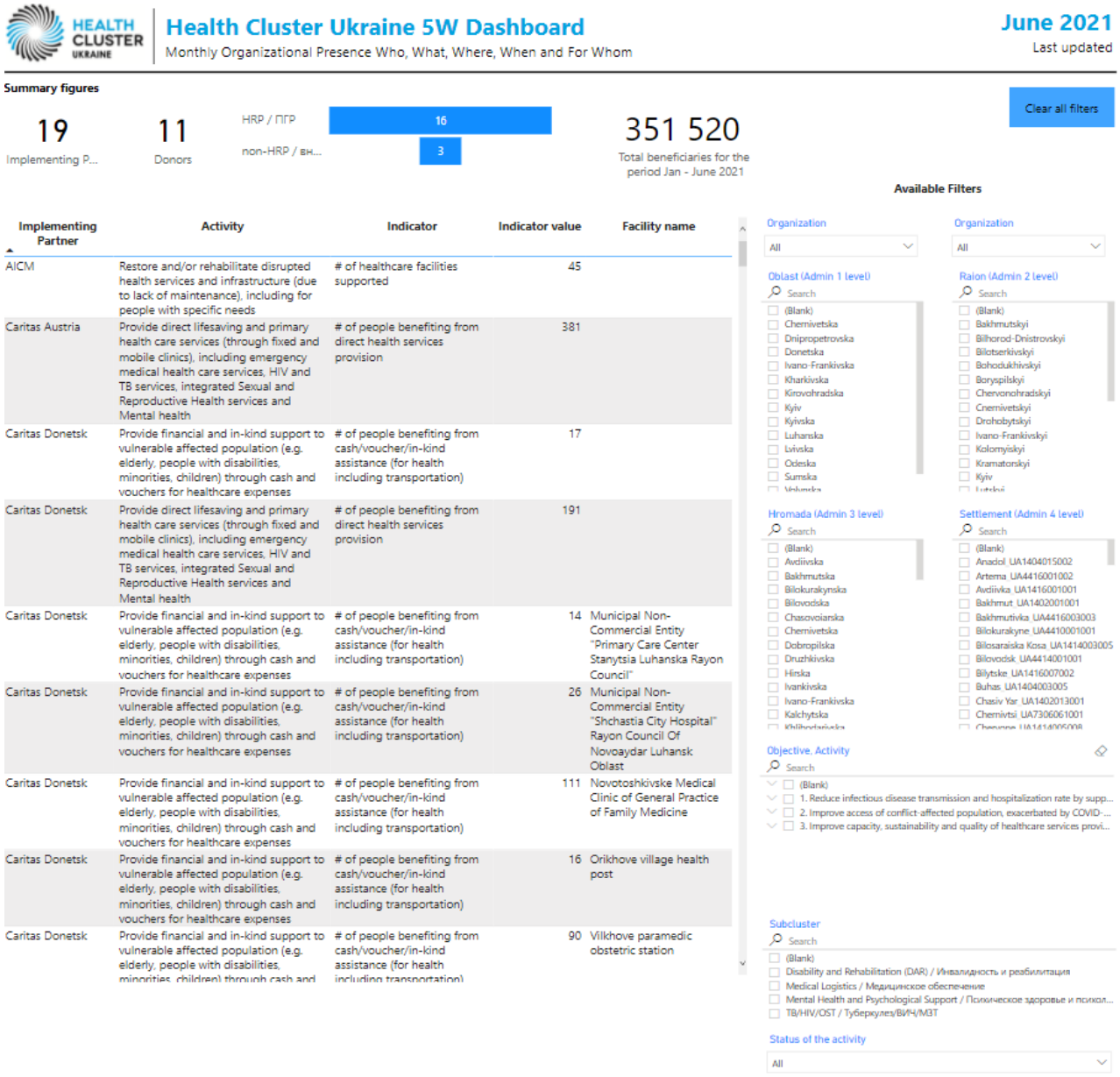
[303] Ukraine Health Cluster, Bulletin #14, September-October-November 2021.
[304] Ukraine Health Cluster, COVID-19 5W Dashboard, September 2021.
[305] Ukraine Health Cluster, COVID-19 5W Dashboard, September 2021.

Fig. 11: COVID-19 5W Dashboard[306]



306 Ukraine Health Cluster, COVID-19 5W Dashboard, September 2021.

Fig. 12: Health Cluster Ukraine 5W Dashboard[307]



HEALTH CLUSTER UKRAINE

Health Cluster Ukraine 5W Dashboard

Monthly Organizational Presence Who, What, Where, When and For Whom

June 2021

Last updated

Summary figures

19 Implementing P...

11 Donors

HRP / ПГР 16

non-HRP / вн... 3

351 520 Total beneficiaries for the period Jan - June 2021

Clear all filters

Implementing Partner	Activity	Indicator	Indicator value	Facility name
AICM	Restore and/or rehabilitate disrupted health services and infrastructure (due to lack of maintenance), including for people with specific needs	# of healthcare facilities supported	45	
Caritas Austria	Provide direct lifesaving and primary health care services (through fixed and mobile clinics), including emergency medical health care services, HIV and TB services, integrated Sexual and Reproductive Health services and Mental health	# of people benefiting from direct health services provision	381	
Caritas Donetsk	Provide financial and in-kind support to vulnerable affected population (e.g. elderly, people with disabilities, minorities, children) through cash and vouchers for healthcare expenses	# of people benefiting from cash/voucher/in-kind assistance (for health including transportation)	17	
Caritas Donetsk	Provide direct lifesaving and primary health care services (through fixed and mobile clinics), including emergency medical health care services, HIV and TB services, integrated Sexual and Reproductive Health services and Mental health	# of people benefiting from direct health services provision	191	
Caritas Donetsk	Provide financial and in-kind support to vulnerable affected population (e.g. elderly, people with disabilities, minorities, children) through cash and vouchers for healthcare expenses	# of people benefiting from cash/voucher/in-kind assistance (for health including transportation)	14	Municipal Non-Commercial Entity "Primary Care Center Stanytsia Luhanska Rayon Council"
Caritas Donetsk	Provide financial and in-kind support to vulnerable affected population (e.g. elderly, people with disabilities, minorities, children) through cash and vouchers for healthcare expenses	# of people benefiting from cash/voucher/in-kind assistance (for health including transportation)	26	Municipal Non-Commercial Entity "Shchastia City Hospital" Rayon Council Of Novoaydar Luhansk Oblast
Caritas Donetsk	Provide financial and in-kind support to vulnerable affected population (e.g. elderly, people with disabilities, minorities, children) through cash and vouchers for healthcare expenses	# of people benefiting from cash/voucher/in-kind assistance (for health including transportation)	111	Novotoshkivske Medical Clinic of General Practice of Family Medicine
Caritas Donetsk	Provide financial and in-kind support to vulnerable affected population (e.g. elderly, people with disabilities, minorities, children) through cash and vouchers for healthcare expenses	# of people benefiting from cash/voucher/in-kind assistance (for health including transportation)	16	Orikhove village health post
Caritas Donetsk	Provide financial and in-kind support to vulnerable affected population (e.g. elderly, people with disabilities, minorities, children) through cash and	# of people benefiting from cash/voucher/in-kind assistance (for health including transportation)	90	Vilkhove paramedic obstetric station

Available Filters

Organization: All

Organization: All

Oblast (Admin 1 level): (Blank), Chernivetska, Dnipropetrovska, Donetska, Ivano-Frankivska, Kharkivska, Kirovohradska, Kyiv, Kyivska, Luhanska, Lvivska, Odeska, Sumska

Raion (Admin 2 level): (Blank), Bakhmutskyi, Bilhorod-Dnistrovskyi, Bilotserkivskyi, Bohodukhivskyi, Boryspilskyi, Chervonohradskyi, Chernivetskyi, Drohobytskyi, Ivano-Frankivskyi, Kolomyiskyi, Kramatorskyi, Kyiv

Hromada (Admin 3 level): (Blank), Avdiivska, Bakhmutska, Bilokurakynska, Bilovodska, Chasovoiarska, Chernivetska, Dobropilska, Druzhkivska, Hirska, Ivankivska, Ivano-Frankivska, Kalchytska

Settlement (Admin 4 level): (Blank), Anadol, UA1404015002, Artema, UA4416001002, Avdiivka, UA1416001001, Bakhmut, UA1402001001, Bakhmutivka, UA4416003003, Bilokurakyne, UA4410001001, Bilosaraiska Kosa, UA1414003005, Bilovodsk, UA1414001001, Bilytske, UA1416007002, Buhas, UA1404003005, Chasiv Yar, UA1402013001, Chernivtsi, UA7306061001

Objective, Activity: (Blank), 1. Reduce infectious disease transmission and hospitalization rate by supp..., 2. Improve access of conflict-affected population, exacerbated by COVID-..., 3. Improve capacity, sustainability and quality of healthcare services provi...

Subcluster: (Blank), Disability and Rehabilitation (DAR) / Инвалидность и реабилитация, Medical Logistics / Медицинское обеспечение, Mental Health and Psychological Support / Психическое здоровье и психол..., TB/HIV/OST / Туберкулез/ВИЧ/МЗТ

Status of the activity: All

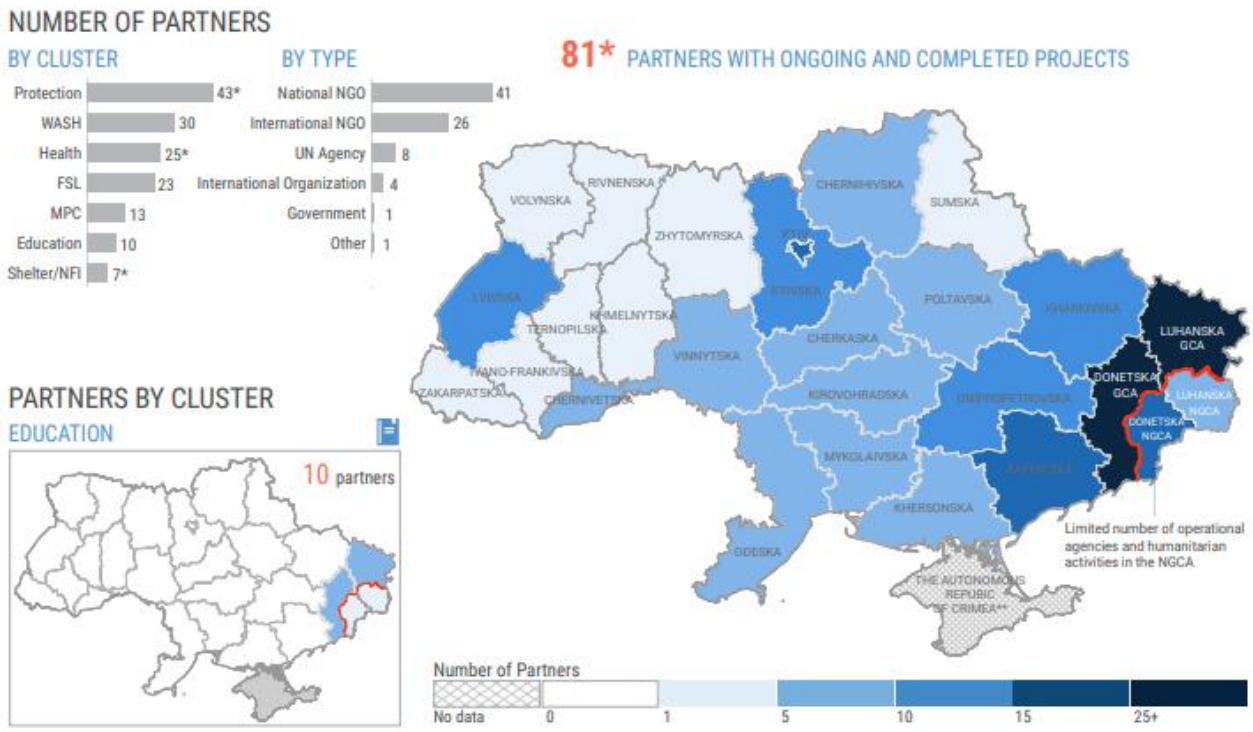
The Health Cluster also maintains a monthly log of requests for COVID-19 humanitarian assistance and the partners who are responding, visible through the web-based Health Cluster Referrals Tracking Tool.[308]

OCHA Ukraine also publishes a 3W Operational Presence Map on a quarterly basis, detailing the humanitarian partners working in the country (see below).

[307] Ukraine Health Cluster, COVID-19 5W Dashboard, September 2021.

[308] Ukraine: Health Cluster, accessed October 2021.

Fig. 13: 3W Operational Presence Map[309]



Source: OCHA, June 2021

Table 36: OCHA Ukraine 3W humanitarian health sector operational presence in Donetska and Luhanska oblasts, as of 30 June 2021[310]

Oblast	# Partners
Donetska	18
GCA	16
NGCA	7
Luhanska	17
GCA	13
NGCA	5

Note: Activities indicated in NGCA are largely suspended since mid-July 2015. The resumption of activities and humanitarian assistance is pending on the outcome of the 'registration' by the de-facto authorities. Some partners may be working in both GCA and NGCA and may be counted several times.

[309] OCHA, Ukraine 3W Operational Presence, 30 June 2021.
[310] OCHA, Ukraine 3W Operational Presence, 30 June 2021.

Availability / functionality of humanitarian health resources

Along the LoC, there is a shortage of medical staff (from 20% to 40% depending on the settlement), and about 60% of available primary care physicians are of pre-retirement and retirement age.[311] In 2020, there were 147 361 doctors in Ukraine, 5192 doctors (276 per 100 000) in Donetska oblast (GCA) and 1869 (278 per 100 000) in Luhanska oblast (GCA).[312]

Ukraine has 4.42 primary health care facilities per 100 000 population; Donetska has 1.89; Luhanska 3.02. The most recent HeRAMS assessment in 2017 identified 533 health facilities in Donetska oblast (GCA) and 231 in Luhanska oblast, totalling 764 health facilities in the GCA. The level of functionality of these facilities in outlined in Table 45 below. HeRAMS data on the availability of general clinical and trauma care services for 12 tertiary hospitals in each of Donetska and Luhanska oblasts is detailed in Tables 46 and 47 at the end of this section.

The most up-to-date health resource data focuses on COVID-19 capacity and functionality.

Two dashboards currently track the health system status in Ukraine to aid in the COVID-19 response. The Office of the National Security and Defense Council of Ukraine has created a Health Care System dashboard that maps medical services, pharmacies, hospitalizations, hospital bed type and occupancy[313] The WHO Regional Office for Europe operates a dashboard with MOH data on regional bed occupancy and oxygen availability.[314] Both of these dashboards are updated daily, but note, there are discrepancies between them.

Table 37: Medical care institutions in Ukraine, Donetska and Luhanska oblasts, as of 30 October 2021. [315]

	Ukraine	Donetska (GCA)	Luhanska (GCA)
Medical institutions	3149	121	54
Type of medical care			
Primary	1421	31	24
Specialized	1405	76	27
Emergency	24	1	1
Primary and specialized	297	13	2
Emergency and specialized	1	0	0
Ownership			
Communal	2517	107	49
Private – legal entities	231	10	2
Private - FOP	401	4	3
Provide assistance to patients with COVID-19			
Inpatient care	482	24	9
Emergency services	25	1	1
Mobile crews	799	32	17

[311] Médicos del Mundo, Impact of Health Reform on the Primary Healthcare Level in Conflict-Affected Areas of Donetsk and Luhansk Oblasts, June 2021.
[312] State Statistics Service of Ukraine, Data on medical staff of the Ministry of Health of Ukraine for 2020.
[313] National Security and Defense Council of Ukraine, Health system401 of Ukraine, accessed October 2021.
[314] WHO EURO/Ukraine Ministry of Health, Information on bed occupancy and oxygen availability in the regions of Ukraine, accessed 29 October 2021.
[315] National Security and Defense Council of Ukraine, Health system of Ukraine, accessed October 2021.

There are 1571 registered retail pharmacies in Donetska oblast and 764 in Luhanska oblast.[316]

[316] National Security and Defense Council of Ukraine, Health system of Ukraine, accessed October 2021.

Table 38: Medical Institution Capacity in Ukraine, Donetska and Luhanska oblasts, as of 7 October 2021 – data from the Office of the National Security and Defense Council.[317]

	Ukraine	Donetska (GCA)	Luhanska (GCA)
Total beds	105 035	6373	2850
Beds allocated for COVID-19 (% total)	53 678	2746 (43%)	1392 (49%)
ICU – total number of beds	4999	281	111
ICU – beds allocated for COVID-19	3939	223	71
Total number of ventilators	4504	194	100
Total number of beds supplied with oxygen	65 259	3033	2190
Total number of beds supplied with oxygen allocated to COVID-19	51 260	2459	1392

Table 39: Medical Institution Capacity in Ukraine, Donetska and Luhanska oblasts, as of 7 October 2021 – data from WHO/Ministry of Health.[318]

	Ukraine	Donetska (GCA)	Luhanska (GCA)
Beds allocated for COVID-19	39 410	1626	304
ICU – total number of beds	3627	150	39
Total number of ventilators	4504	194	100
Total number of beds supplied with oxygen	15 646	745	117

The Essential Health Services (EHS) Tool was used to conduct an assessment in June and July 2021 of the impact of COVID-19 on essential health services. The survey collected data from 120 health care facilities – 72 primary healthcare centres (PHCs), and 48 hospitals in Donetska and Luhanska oblast. Some of the key findings were:

- 14 facilities reported damage; nine PHCs, five hospitals; four had insignificant damage, nine were partially damaged; one hospital fully damaged. The damage was caused by conflict (three), lack of maintenance (three), natural disaster (three).
- 11 facilities reported damaged equipment – one significant, six partial and four fully
- One PHC was not accessible due to physical barriers
- 47% of PHCs and 60% of hospitals had a designated triage area
- 67% of PHCs and 96% of hospitals had a written Emergency Response Plan in case of a mass casualty event
- 97% reported paying staff salaries on time
- 24% of PHC and 21% of hospitals reported paying all personnel who have worked overtime
- 27% recruited new staff; 7% recruited temporary staff

[317] WHO EURO/Ukraine Ministry of Health, Information on bed occupancy and oxygen availability in the regions of Ukraine, accessed 29 October 2021.
[318] WHO EURO/Ukraine Ministry of Health, Information on bed occupancy and oxygen availability in the regions of Ukraine, accessed 29 October 2021.

Table 40: Major Findings from the assessment on the impact of COVID-19 on essential health services.[319]

	Primary health care centres (%)	Secondary health care centres (%)	Total (%)
Impact on Workforce			
The facility has made changes to the way in which health workers are managed in the last 6 months specifically because of changes in patient volume or patient type related to COVID-19	21	44	30
The facility has reassigned staff to different units or responsibilities in the facility	74	78	75
The facility has recruited new staff to support increased patient volumes	26	28	27
Impact on financial management			
The facility has received additional funding to ensure the maintenance of essential health services during the pandemic	31	65	
Personnel have worked overtime in the last 6 months	24	21	
All personnel who worked overtime received overtime payment	24	21	
Impact on service delivery and utilization			
The facility service hours been changed because of a COVID-19 outbreak in the last 6 months	12	20	14
For non-COVID-19 services, the facility has reduced the volume of services	7	36	
For non-COVID-19 services, the facility provided home-based care for certain patients	48	11	
The facility observed changes in outpatient attendance in the last 6 months, compared to the previous 6 months	12	20	

From January to March 2021, the Ukraine Health Cluster conducted a Hospital Readiness and Capacity Assessment in Donetska oblast (GCA) targeting 12 COVID-19 Designated Hospitals.[320] Of the facilities in the assessment:

- 30% had insufficient bed capacity
- 25% did not have any isolation beds
- None had a PCR-capable laboratory onsite
- 30% did not receive test results within 48h (timeframe set by international standards)
- Two did not have a central oxygen supply
- Most had not implemented contact tracing
- Many of the health care workers were at high risk for burnout
- Most did not have a working triage system
- Criteria for hospitalization were not consistent
- None had a plan for post-COVID-19 rehabilitation

More findings from this analysis are detailed below in Tables 41-44.

[319] WHO/Health Cluster, Impact of COVID-19 on EHS – Preliminary Assessment finding in GCA, September 2021 (unpublished).
[320] Ukraine Health Cluster, Health Readiness Report Donetska GCA, April 2021.

Table 41: Availability of Health Services in 12 COVID-19 designated hospitals in Donetska oblast[321]

Health Service	Number of hospitals (%)
Isolation beds	9 (75%)
Central oxygen supply	10 (83%), 1 (8%) planned
PCR laboratory	0, 2 (12%) planned
In hospital	0
0-10km away	3 (25%)
11-30km away	1 (8%)
31-60km away	8 (67%)

Table 42: Emergency Planning 12 COVID-19 designated hospitals in Donetska oblast[322]

Component	Number of hospitals with capacity (%)	Number of hospitals planning or developing capacity (%)
Hospital emergency plan	10 (83%)	1 (8%)
Hospital Emergency Operation Centre (EOC)	4 (33%)	1 (8%)
Surge capacity planning	9 (75%)	3 (25%)
Identification of gaps and coordinating with authorities/facilities	7 (58%)	4 (33%)
Outsourcing care of non-critical patients to appropriate alternative treatment sites	6 (50%)	5 (42%)
Coordination with the local authorities and identification of additional sites for conversion to patient care units	7 (58%)	4 (33%)
Plan for decreasing non-essential services	9 (75%)	1 (8%)

Table 43: Infection Prevention and Control (IPC) in 12 COVID-19 designated hospitals in Donetska oblast[323]

Infection Prevention and Control programme	Number of hospitals with capacity (%)	Number of hospitals planning or developing capacity (%)
IPC focal point	9 (75%)	0
IPC Standard Operating Procedures	12 (100%)	0
Standard precautions for all patients	11 (92%)	1 (8%)
Droplet and contact precautions	11 (92%)	1 (8%)
Single-use and disposable equipment	10 (83%)	2 (12%
Suspected and confirmed cases separated and in adequately ventilated single rooms	11 (92%)	1 (8%)
Designated team to care for suspected and confirmed COVID-19 cases	12 (100%)	0
Healthcare workers and cleaning personnel receive training on standard, contact, droplet, and airborne precautions	12 (100%)	0
Safe management of waste practices	12 (100%)	0

[321] Ukraine Health Cluster, Health Readiness Report Donetska GCA, April 2021.
[322] Ukraine Health Cluster, Health Readiness Report Donetska GCA, April 2021.
[323] Ukraine Health Cluster, Health Readiness Report Donetska GCA, April 2021.

Table 44: Case Management in 12 COVID-19 designated hospitals in Donetska oblast[324]

Case Management	Number of hospitals with capacity (%)	Number of hospitals planning or developing capacity (%)
Triage, early recognition, and source control (isolating patients with suspected COVID-19)	8 (67%)	2 (12%); 2 NA
Well-equipped triage station at the entrance of the health -care facility, supported by trained staff	7 (58%)	2 (12%); 4 NA
Separate waiting and examination area for patients with respiratory symptoms/fever	8 (67%)	
Home-based care for mild cases	3 (25%)	

In a 2020 USAID assessment of 18 specialized and two emergency care facilities in Donetska and Luhanska oblasts, the number of health staff decreased between 2019 and 2020, from 8506 to 7883, a 7.3% decrease overall. The number of doctors and junior health staff decreased by 9.4%, nurses and administrative staff – by 7.7% and support staff by 4.1%.[325]

Functionality and availability of health services from HeRAMS 2017

The most recent HeRAMS assessment in 2017 identified 533 health facilities in Donetska oblast (GCA) and 231 in Luhanska oblast, totalling 764 health facilities in the GCA. Approximately 94% were assessed as fully functioning in 2017.

Table 45: Functionality of Health Facilities in Donetska and Luhanska oblasts, HeRAMS 2017

Oblast	Fully Functioning n (%)	Partially Functioning n (%)	Non-functioning n (%)	Total n (%)
Donetska	505 (94)	9 (2)	19 (4)	533 (100)
Luhanska	216(94)	7 (3)	8 (4)	231 (100)
Total	721(94)	16 (2)	27 (4)	764 (100)

[324] Ukraine Health Cluster, Health Readiness Report Donetska GCA, April 2021.
[325] USAID, Analysis of SHC and EC delivery in selected raions of Donetska and Luhanska oblasts, 4 August 2021.

Table 46: Availability of Health Services in 12 Tertiary Hospital in Donetska (HeRAMS 2017)

General Clinical Services and Trauma Care	Fully Available (%)	Partially Available (%)	Not Available (%)	Not Normally Provided (%)
Outpatient services	83	0	0	17
Primary injury care	0	8	0	92
Post-surgery rehabilitation	8	0	0	92
Trauma and surgical care and elective surgery	8	0	0	92
Intensive care unit	8	0	8	83
In-patient capacity	42	0	0	58
Basic laboratory services	58	8	0	33
Basic imaging services	50	0	0	50
Blook bank service	0	0	0	100
Pharmacy of essential drugs	58	42	0	0
Referral capacity	50	17	0	33
Ambulance service	17	0	0	83
Dental care	8	0	0	92
Total (%)	30	6	1	64

Table 47: Availability of Health Services in 12 Tertiary Hospital in Luhanska (HeRAMS 2017)

General Clinical Services and Trauma Care	Fully Available (%)	Partially Available (%)	Not Available (%)	Not Normally Provided (%)
Outpatient services	64	18	0	18
Primary injury care	9	0	0	91
Post-surgery rehabilitation	0	9	0	91
Trauma and surgical care and elective surgery	27	0	0	73
Intensive care unit	46	0	0	55
In-patient capacity	100	0	0	0
Basic laboratory services	73	18	0	9
Basic imaging services	36	36	0	73
Blook bank service	18	9	0	73
Pharmacy of essential drugs	64	36	0	0
Referral capacity	64	18	0	18
Ambulance service	9	0	0	91
Dental care	0	9	0	91
Total (%)	39	12	0	49

Humanitarian health system performance

Utilisation of services

No data available.

Quality of humanitarian health services

No data available.

7. Information gaps

Table 48: Information gaps and recommended tools for primary data collection

	Gap	Recommended tools / guidance for primary data collection
Health status and threats	Mortality data - disease-specific (National & GCA)	Census; facility-based surveillance
	Sexual and Reproductive health – updated data (National & GCA)	Facility-based surveillance
	Child health - malnutrition data (National & GCA)	Anthropometric survey, desk-based nutritional risk assessment
	Hepatitis B & C – incidence/prevalence/treatment data (National & GCA)	Facility-based morbidity and mortality data
	Waterborne diseases – incidence/prevalence data (National & GCA)	Facility-based morbidity and mortality data; laboratory surveillance data; routine environmental monitoring
	NCDs - incidence/prevalence data (National & GCA)	Survey to measure point prevalence of chronic diseases; facility-based morbidity and mortality data
	Environmental health - impact data (National & GCA)	Facility-based morbidity and mortality data
	Mental health – incidence/prevalence/treatment data (GCA)	Query mental health symptoms as part of facility-based surveillance and general health surveys, services mapping, participatory assessment
	People with disabilities – health data (GCA)	Facility-based morbidity and mortality data
Health System Needs	Medical equipment and supplies data (GCA)	Facility audits and spot checks, monitoring and analysis of requests for assistance
Humanitarian health system performance	Utilisation of health services (GCA)	Facility-based morbidity data; coverage survey, comparison of actual programme outputs vs. target beneficiaries; focus groups, other qualitative methods for exploring service utilisation and barriers
	Quality of health services (GCA)	Facility-based morbidity and mortality data; facility audits and spot checks, patient exit interviews

8. Additional Resources

Key documents

1. Acaps Ukraine – Conflict in Donetsk and Luhansk Briefing note, 4 November 2019.
2. Kyiv Institute of Sociology, Mental health in Donetsk and Luhansk oblasts – 2018.
3. Médicos del Mundo, Impact of Health Reform on the Primary Healthcare Level in Conflict-Affected Areas of Donetsk and Luhansk Oblasts, June 2021.
4. Médicos del Mundo, Role of the decentralization reform, June 2021.
5. OCHA, Ukraine 3W Operational Presence, 30 June 2021.
6. OCHA, Ukraine - Humanitarian Needs Overview, February 2021.
7. OCHA, Ukraine - Humanitarian Response Plan 2021, February 2021.
8. OCHA, Ukraine Situation Report, accessed October 2021.
9. OHCHR, Conflict-related casualties, 12 January 2022.
10. OHCHR, Report on the Human Rights Situation in Ukraine 1 February - 31 July 2021, 23 September 2021.
11. OSCE, 2020 Trends and observations from the Special Monitoring Mission to Ukraine, 28 January 2021.
12. Protection Cluster Ukraine, Factsheet, August 2021.
13. Protection Cluster Ukraine/Health Cluster Ukraine, Exploring Access to health care services in Ukraine: a protection and health perspective, July 2019.
14. REACH, COVID-19 Preparedness: Rapid Health Facility Assessment, April 2020.
15. REACH, Protection Assessment of Isolated Settlements in Government-Controlled Areas Along the Contact Line, February 2019.
16. REACH, Ukraine: Analysis of Humanitarian Trends, July 2019.
17. REACH, Ukraine: Multisector Needs Assessment, May 2021.
18. USAID, Ukraine: Assessment of Patient Barriers to Health Care in the Conflict-Impacted Areas of Eastern Ukraine, 2021.
19. USAID, Ukraine - Complex Emergency Fact Sheet #3, Fiscal Year (FY) 2021, 2 July 2021.
20. WHO EURO, Access to health-care services for older persons and persons with disabilities living in Eastern Ukraine along the Line of Contact, 2021.

Disclaimer

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