

# Ukraine Food Security Report

12 May 2022

SAVING LIVES CHANGING LIVES

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#### **HIGHLIGHTS**

The World Food Programme (WFP) has established a remote food security monitoring system in Ukraine to inform its response. Between 10 March and 12 April 2022, a total of 4,741 respondents were interviewed through a phone survey. This report presents the results of this survey, offering a snapshot in time of household food security. Considering the highly fluid and rapidly developing context in Ukraine, the food security situation is likely to continue to evolve over time. Continuous monitoring will be carried out to capture such changes as the situation unfolds.



Nationally, one third of households were found to be food insecure, based on inadequate current food consumption and eroding ability to maintain adequate consumption levels in the future:



One in five of the surveyed households had inadequate food consumption at the time of the survey.



When combining this with households' use of coping strategies such as borrowing money or leaving valuable assets behind when displacing, as well as the reliance on erratic income sources or total income loss, food insecurity estimates rise to approximately **one in** three.



Oblasts in the eastern and southern parts of the country recorded the highest levels of food insecurity, with one in every two households being food insecure.



Households that are displaced or those separated from each other were found to be the most impacted, with around one in every two such households food insecure.



Households predominantly rely on cash purchases to access food; however, over a third of all respondents reported having no income or depending on assistance as the main source of income.



One in four households had to borrow money to cover their essential needs



One in three were forced to abandon valuable assets during their displacement journey.

This comes on a backdrop of disrupted supply chains and increasing food prices. Taken together, it suggests the current food insecurity largely arises from a lack of access and purchasing power.

Households apply various strategies to cope with a lack of food or money:



Two in every three households reported relying on less preferred and less expensive food



More than one-third reduced portion **sizes** to stretch out available food

Reported that **adults** restricted their consumption to allow children to eat.



The three most frequently mentioned needs that respondents identified are:



**19%** Health and medicine



**19%** Safety



**17%** Transportation/Fuel



Markets are impacted by the war, and predominantly in the east.



In the northern and eastern oblasts, up to a third of people reported that shops in their **local markets were partially or fully closed** at the time of the survey.



More than half of respondents in Kyiv city and the north, east, and south oblasts reported that **some products were scarce**, mentioning food stuffs such as grains, bread, dairy, and meat.

However, evidence from WFP's work along the food supply chain suggests that after an initial shock, market actors are indeed adapting to the changed circumstances where and to the extent possible, highlighting the need for continued monitoring of market dynamics.

#### **BACKGROUND**

**Since the onset of the war on 24 February 2022, the humanitarian situation in Ukraine has continued to deteriorate.** The war has pushed millions of people from their homes, creating the fastest-growing displacement crisis since the second world war.

Eastern and southern oblasts in Ukraine continue to see active fighting. As of 2 May, the Office of the United Nations High Commissioner for Human Rights (OHCHR) reported a total of 6,546 civilian causalities, including 3,193 killed and 3,353 injured, though actual figures are believed to be much higher. Critical humanitarian needs are apparent. The destruction of civilian infrastructure is affecting essential services such as electricity, heating, and clean water and disrupting access to food and healthcare. Livelihoods are affected by disrupted markets and supply chains. Nearly 13.2 million have been displaced internally or across borders since the beginning of the war. Over 5.5 million people, mostly women and children fled Ukraine until 2 May, seeking refuge in Poland, Romania, Moldova, and other neighbouring countries. IOM estimates another 7.7 million people to be internally displaced persons (IDPs) within Ukraine as of 17 April.

WFP has established a remote monitoring system to assess and monitor the food security situation in the country. This included rapid web surveys to guide the immediate response, followed by an initial round of remote emergency food security assessment conducted between 10 March and 12 April through phone calls using Computer Assisted Telephone Interview (CATI) technology. This phone assessment covered a representative sample of 4,741 respondents across all oblasts except Krym and Sevastopilska. This report is based on its findings. Data from other sources, including the rapid web surveys and external sources, was used to validate findings and is referenced throughout. Following the end of the first round of CATI survey data collection, continuous food security monitoring using the same technology has commenced.



<sup>1 &</sup>quot;Ukraine: Civilian Casualties as of 24:00 02 May 2022 - Ukraine," ReliefWeb, accessed May 4, 2022, https://reliefweb.int/report/ukraine/ukraine-civilian-casualties-2400-2-may-2022-enruuk.

<sup>2</sup> Ibid.

**<sup>3</sup>** WFP, "Ukraine and Neighbouring Countries - WFP External Situation Report #14 - 24 April 2022," 14, accessed April 25, 2022, https://api.godocs.wfp.org/api/documents/feadf22233be4a75a52e8628706f1978/download/.

<sup>4 &</sup>quot;Situation Ukraine Refugee Situation," UNHCR Data, accessed April 25, 2022, https://data2.unhcr.org/en/situations/ukraine.

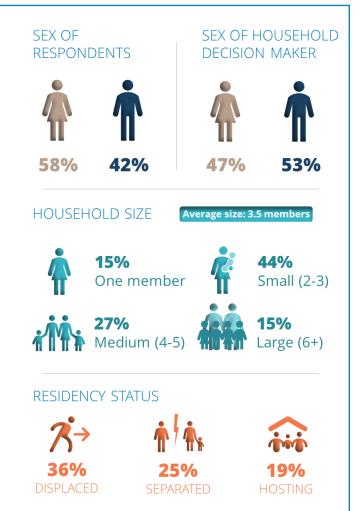
<sup>5</sup> IOM, "Ukraine - Internal Displacement Report: General Population Survey Round 3," 3, accessed April 22, 2022, https://displacement.iom.int/sites/default/files/public/reports/IOM\_Ukraine%20Displacement%20Report\_R3\_ENG%20%282%29.pdf.

### PROFILE OF RESPONDENTS AND HOUSEHOLD DEMOGRAPHICS

Half of all survey respondents were women, and nearly half of the households surveyed reported that women are the main decision-makers in their households.

The average size of a surveyed household is 3.5 members. This is higher than the average size of 2.6 members reported by the State Statistics Service of Ukraine in 2020.<sup>6</sup> This could be caused by the fact that 19 percent of the surveyed population are hosting internally displaced relatives and friends. When grouping the reported number of household members, results showed that the majority fell in the small and medium-sized household categories.

More than one in three of the surveyed households reported being displaced from their original place of residence at the time of the survey, as a result of the war. A quarter of respondents reported being separated from other members of their households, a figure that jumps to around 50 percent for displaced households. Oblasts recording the highest proportions of separated households were found to be Zhytomyrska, Kyivska, Kharkivska as well as Kyiv city (around 30 percent each).



#### **FOOD SECURITY**



At the national level, one-third of households were found to be food insecure. This estimate is based on the remote Consolidated Approach for Reporting Indicators of Food Security (rCARI). The rCARI classification assesses the adequacy of households' current food consumption, as well as their capacity to maintain food consumption as measured through the use of coping strategies, type of income sources, and changes in income. At the national level, one in five of the interviewed households had inadequate current food consumption at the time of the survey. When combining this with households' use of coping strategies such as borrowing money or leaving valuable assets behind when displacing, as well as relying on erratic income sources or total income loss, food insecurity estimates rise to approximately one in three, nationwide.

It is important to note that out of the 33 percent estimated to be food insecure according to the rCARI scale, only 5 percentwere found to be severely food insecure, meaning facing extreme food consumption gaps or extreme loss of livelihood assets. The remaining 28 percent are moderately food insecure, i.e., experience some food consumption gaps and inability to meet food needs without applying crisis coping strategies.<sup>7</sup>

As the following section will show, findings indicate that households majorly rely on cash purchases to access food, but also that 34 percent of respondents reported no longer having an income source or depending on assistance, and that one in four needed to borrow money to meet their essential needs. This comes on a backdrop of disrupted supply chains and increasing prices. Taken together, it suggests the current food insecurity largely arises from a lack of access and purchasing power.

These findings represent the result of the first round of monitoring and offer a snapshot of the food security situation as surveyed between mid-March to mid-April. Considering the highly fluid context in Ukraine, **continuous monitoring will be carried out to understand how household food security will evolve as the situation unfolds.** 

<sup>6</sup> State Statistics Service of Ukraine, "Statistical Yearbook of Ukraine 2020" http://ukrstat.gov.ua/druk/publicat/kat\_u/2021/zb/11/Yearbook\_2020\_e.pdf (pg.78)

<sup>7</sup> The rCARI scale of food insecurity classifies population into four categories (food secure, marginally food secure, moderately food insecure and severely food insecure). According to rCARI food insecure is measured by combining moderately and severely food insecure population. This classification is different from IPC where population is classified into five phases using a different scale.



Map 1: Percentage of food insecure population (moderately + severely) by Oblast

Food security estimates differ between oblasts and between population groups. **Oblasts in the eastern and southern parts of the country were found to have the highest estimate levels of food insecurity,** with one in every two households being food insecure (see map 1). Luhanska stands out as the worst-off oblast in food security terms. This is also an oblast with significant access challenges, which could play a large part in the food security situation.<sup>8</sup>

Comparisons between IDPs and residents further demonstrate a higher level of food insecurity among IDPs (54%), compared to residents (23%). IDPs in the east and south are the most food insecure. In the east, 62 percent of IDPs are food insecure (14 percent severe and 48 percent moderate), while this figure is 59 percent for IDPs in the south (8 percent severe and 51 percent moderate). Furthermore, results showed that separated households have a higher level of food insecurity than those not separated from each other. On average, one in every two separated households is food insecure compared to around one in every four non-separated households.



The below chart shows food security by both displacement and separation status. Households that are both displaced and separated display the highest levels of food insecurity (56 percent).

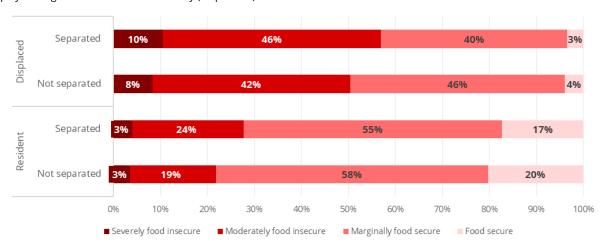


Chart 2: rCARI by household separation status

<sup>8 &</sup>quot;Humanitarian situation in Donetsk, Kharkiv, and Luhansk oblasts", https://www.acaps.org/sites/acaps/files/products/files/20220419\_acaps\_thematic\_report\_ukraine\_humanitarian\_situation\_in\_kharkiv\_luhansk\_and\_donetsk\_0.pdf

Comparisons by household size show that large households tend to be more food insecure, with nearly half (44 percent) falling under the moderately or severely food insecure classifications, while households of smaller sizes have similar food insecurity levels.

No significant differences were found in the food security situation of households that have either female or male decision-makers (about a third for both).

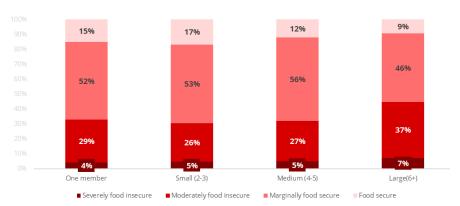


Chart 3: rCARI by household size across Ukraine

#### **FOOD CONSUMPTION**

Overall, 21 percent of households were found to have inadequate food consumption, defined as a poor or borderline household food consumption score (see annex 1). Analyzing results by oblast, **Luhanska had the highest share of households with inadequate food consumption (47 percent).** Meanwhile, Khersonska and Donetska oblasts had around one-third of households with poor or borderline food consumption.



Map 4: Food consumption score (borderline and poor) by Oblast

Web survey results have echoed the above findings from the phone survey, with nearly 40 percent of IDPs residing in the eastern and southern areas consuming one meal or less the day prior, followed by 35 percent of IDPs in Kyiv.

When comparing the inadequate food consumption by residence and displacement statuses of households, no major differences were observed. Households with a female decision-maker were more likely to have a poor or borderline consumption (23 percent), compared to 19 percent of households with a male decision-maker.

Households mostly bought their food with cash (69 percent), followed by consuming their own

production (17 percent), and credit purchases (6 percent). However, this could change over time as people may exhaust the cash available to them, forcing them to instead rely on credit purchases. Indeed, **one in four respondents said they already had to borrow money to meet their needs** (see the section on livelihood coping strategies).

In the web surveys, respondents were asked about whether they stocked food; around one-third of respondents did not have a stock of food at home. Among those who said they did, 30 percent estimated that it would last them for less than a week, and 34 percent from anywhere between one to two weeks.

#### CONSUMPTION-BASED STRATEGIES

When households cope with a lack of food or money to buy food by engaging in behaviours such as relying on less preferred and less expensive foods, reducing portion sizes, limiting the number of daily meals, or restricting adults' consumption to allow children to eat, this is considered 'consumption-based coping'. Capturing such behaviours is important, especially in emergency settings, as it shows how households deal with sudden food shortfalls and meet their short-term food needs. The reduced or consumption-based Coping Strategies Index (rCSI) encompasses five strategies that can be summarised into an index from zero to 56. The higher the rCSI score is, the more frequent and/or extreme coping mechanisms are adopted.

Results showed that 76 percent of households relied at least once in the previous week on consumption-based coping strategies. Looking closer at each strategy, two in every three households (68 percent) rely on less preferred and less expensive food. More than one-third (35 percent) of households are reducing the portion size of their meals to stretch out available food. A similar proportion is limiting the number of daily meals, and 29 percent of households reported adults restricting their consumption to allow children to eat.

The below chart presents the proportions of households relying on low, medium, and high coping, measured based on severity and frequency of the strategies applied, as well as the average rCSI by oblast. The highest percentage of households relying on coping strategies was found to be in Luhanska oblast.

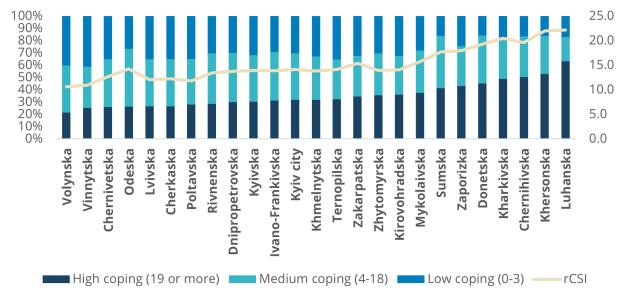


Chart 5: Severity of consumption coping and rCARI by oblast

#### INCOME AND LABOUR

When asked about the current main source of income for their households, **34 percent of respondents reported they no longer** had an income source or depend on assistance. This figure was highest amongst respondents living in Kharkivska oblast (46

percent), followed by Khersonska, Chernihivska, and Kyivska oblasts (36-39 percent).

Before the crisis, informal employment or "undeclared work" was prevalent in Ukraine, as nearly four million people were reportedly involved in the informal sector as of 2016. This constituted an estimated 24 percent of the working-age population of Ukraine. Males were more involved in informal employment compared to females; youth and young adults between 15 and 24 of age, as well as retired persons were also found to be more involved in informal labour. However, amongst the survey respondents, only two percent reported casual labor as their main source of income. This could indicate that **casual or informal labour has been significantly affected by the conflict – a worrying prospect** considering its role for income-earners before the war.

Those who still have a source of income were found to mainly be involved in professional, salaried work, and skilled labour (34 percent), followed by income from pension (28 percent). Before the war, Ukrainian pensioners, who account for 27 percent of the total population, were considered one of the most economically vulnerable groups, and in 2021 it was found that 80 percent of pensioners



received pensions below the subsistence budget, while 20 percent of pensioners had disabilities and required additional assistance.<sup>11</sup> In the WFP web survey, several respondents raised concerns over the possibility of reduction or discontinuation of pensions, which suggests the importance of this social benefit. However, until now, funding is sustained for continued pension payments.<sup>12</sup>

9"Undeclared Work in Ukraine: Nature, Scope and Measures to Tackle It Working Paper," accessed April 26, 2022, https://www.ilo.org/wcmsp5/groups/public/--ed\_dialogue/---lab\_admin/documents/projectdocumentation/wcms\_630068.pdf.

**10** Ihor Verner, "Statistical Yearbook of Ukraine 2020" (State Statistics Service of Ukraine, n.d.).

11 "UN in Ukraine Launched a Policy Paper on Social Protection with a Focus on Pensions within a High-Level International Conference | United Nations in Ukraine," accessed April 26, 2022, https://ukraine.un.org/en/124926-un-ukraine-launched-policy-paper-social-protection-focus-pensions-within-high-level,

12 Ugo Gentilini et al., "Tracking Social Protection Responses in Ukraine and Other Countries" (World Bank, April 2022), https://documents1.worldbank.org/curated/en/451971649433673308/pdf/Living-Paper-3.pdf.



Map 6: Percentage of respondents with no income by oblast

Across the country, nearly six out of ten respondents reported having experienced either a large income reduction or having no income at all as compared to before the war, with an additional 13 percent reporting a slight income reduction. The loss of income is one of the factors driving the estimation of food insecurity since lack or loss of income impedes the ability to cope with shocks and maintain an acceptable level of food consumption. If households manage to restore their income sources, this will improve the food security situation.

Findings have shown that a higher percentage of households with male decision-makers continue to generate income from professional and skilled labour wages (38 percent), compared to females (30 percent). A significant difference was observed among

pensioners as 35 percent of households with female decision-makers rely on pensions compared to only 21 percent of households with male decision-makers. A slightly higher proportion of households with a male decision-maker do not have a source of income (29 percent) compared to households with female decision-makers (25 percent). Lastly, more households with male decision-makers (60 percent) have reported experiencing a complete loss of income or large reductions since the onset of the conflict, compared to those with female decision-makers (54 percent).

#### LIVELIHOOD COPING STRATEGIES

A large share of households adopted different livelihood coping strategies to meet their essential needs. On average, **one in four households had to borrow money to cover their essential needs and one in three were forced to abandon valuable assets** (e.g. jewellery, and other valuables) during the displacement journey. More than a third of respondents in Luhanska, Donetska, and Chernihivska reported having to borrow money. In Luhanksa, half of the respondents left their household valuables behind (49 percent), followed by Khmelnytska (45 percent), Kharkivska (43 percent), Zakarpatska (43 percent), Ternopilska and Donetska (41 percent each).



Map 7: Percentage of respondents having to borrow money by Oblast

Tracing the use of livelihood coping strategies over time is key to understanding how people's ability to cope with shocks and meet their needs may evolve. Borrowing money and/or abandoning one's assets are expected ways of coping with the type of shock that the war and the displacement wave present – and both strategies signal that household resources may thin out in the near term, which could harm the ability to meet needs, including food needs. Monitoring how households continue to cope is crucial to understanding how humanitarian needs will evolve.

#### **MARKETS**

The war has impacted markets across the country. Asking respondents about their local markets, 22 percent of all surveyed households reported some disruptions in the form of shops not operating or only partially operating. In Kyiv city and the eastern and northern areas, this disruption appeared more pervasive, with around one in four respondents reporting that stores were not operating regularly in their neighbourhoods at the time of the survey, and another 20 percent of respondents reported that the stores were only partially functioning (see Map 8).

Across the country, about half of all respondents (47 percent) did not face product shortages in their local shops. However, more than half of respondents in Kyiv city (57 percent) and the north (63 percent), east, and south (64 percent each) oblasts, reported that some products were scarce, with Khersonska, Chernihivska, Sumska, Donetska, Zaporiska and Luhanska oblasts standing out with around seven in 10 respondents or more reporting product scarcity in their local shops (see map 9). Grains, bread, dairy and milk products, sugar, vegetables, and meats were amongst the foods most often mentioned as being scarce. This finding is also confirmed by crowdsourced data, in which contributors have reported flour, meat, and sugar consistently as the most unavailable products in March and April. 13 Fuel and medicine were also among the reported scarce products in the WFP phone survey.





Map 8: Percentage of respondents reporting shops in their neighbourhood not or only partially operating, by Oblast

<sup>13 &</sup>quot;Leveraging Tech to Shed Light on the Humanitarian Situation in Ukraine - Premise," April 19, 2022, https://www.premise.com/blog/leveraging-tech-to-shed-light-on-the-humanitarian-situation-in-ukraine/.

The reports of product scarcity are consistent with findings on people worrying about having enough food:

In the web surveys, 42 percent of respondents reported that they had felt worried about not having enough food to eat in the week before the surveys, and by oblast, Chernihivska recorded the highest level of such concern over access to food (63 percent), followed by Khersonska (63 percent). These oblasts are also amongst the oblasts with the highest frequency of people reporting product scarcity, which could be a driver of food worries.



Map 9: Percentage of respondents reporting some product scarcity in their local shops, by Oblast

Turning to consumer prices, **the Ukrainian consumer price index went up by 4.5 percent** and the price index for food went up by 6.2 percent in March compared to February<sup>14</sup> – a picture consistent with the global inflationary trends. The survey findings also reflect increasing prices. **Three quarters of all respondents reported having experienced significant increases in prices in the two weeks before the survey**. Respondents in the eastern, southern, and northern parts of the country were more likely to report price increases, with the figure going up to 90 percent in the Sumska oblast and over 80 percent in Donetska, Luhanska, Odeska, Khersonska, Kharkivska, and Chernihivska oblasts. According to data from the Ukrainian Statistical Service, bread prices went up by 3.5-4.3 percent in March nationwide, with increases up to around 30 percent in the Kherson oblast. <sup>15</sup>



Evidence from WFP's consultations with actors along the national food supply chain suggests that after an initial shock, food retailers are adapting to the changed circumstances. While constraints such as decreased warehouse capacity and lack of fuel and manpower remain evident and many retail stores are still closed across the country, changing sourcing and transportation strategies has helped maintain store functioning. This adaptation to the situation also comes through in crowdsourced data, where respondents noted larger degrees of unavailability of food items mid-/end-March as compared to the end of April.<sup>16</sup> These observations confirm the phone survey findings that markets are indeed suffering from disruption across the country, but also show that markets are adapting where and to the extent possible, suggesting that continued monitoring is important to track these changes over time.

<sup>14 &</sup>quot;State Statistics Service of Ukraine, http://www.ukrstat.gov.ua/

<sup>15</sup> Ibid

<sup>16 &</sup>quot;Leveraging Tech to Shed Light on the Humanitarian Situation in Ukraine - Premise."



Map 10: Top Oblasts with unmet essential needs (≥20% threshold)

#### **ESSENTIAL NEEDS**

In the phone survey, people were asked about their perception of which essential needs they face serious issues with, if any. The most frequently mentioned answers were health and medicine (19 percent), safety (19 percent), and transportation/fuel (17 percent), followed by food (13 percent). According to WHO, the health system in Ukraine has been severely disrupted, with around 300 health facilities situated in areas affected by hostilities and 1,000 health facilities in changed areas of control, as of 18 April.

Displaced households were more likely than residents to report the need for safety, health/medicine, transport, and food. The proportion of IDPs reporting the need for shelter was twice that of residents (11 percent and 5 percentrespectively).

The situation appears to be particularly alarming in Luhanska, which is the worst-off oblast in terms of unmet needs. Around a third of the surveyed population from Luhanska, Donetska, and Khersonska reported facing issues in meeting their food needs. Health and medicine needs follow similar patterns as food needs: around 40 percent in Luhanska, Chernihivska, Khersonska, and Donetska reported not having access to health care when they needed to, in the previous two weeks.

Almost half of the surveyed population in Luhanska reported safety as one of their top needs. Donetska and Khersonska follow closely, with more than a third reporting this need. Oblasts located near the far eastern border of the country such as Chernihivska and Donetska have the highest proportions of respondents facing issues in seeking transportation and fuel. This is followed by Khersonska in the south and Luhanska in the east.

Comparing needs reported by sex of respondents shows that higher proportions of women reported various unmet needs than men. This was particularly evident for healthcare and food needs, with a difference of four percentage points.

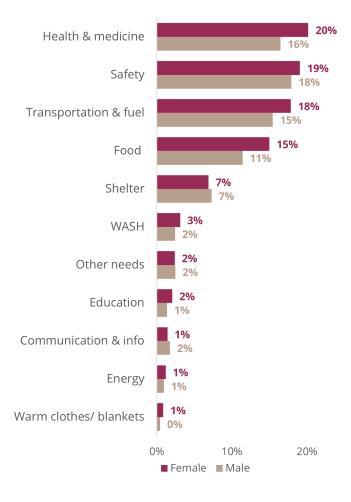


Chart 11: Unmet essential needs by gender of survey respondent

#### **DISPLACEMENT AND MIGRATION**

The patterns of displacement found in the survey are generally consistent with the overall picture from other assessments, with people displacing across the country and many displacing within their oblast of origin. The survey found relatively larger shares of the displaced people in Zakarpatska, Lvivska, Khmelnytska, Ivano-Frankivska, and Dnipropetrovska oblasts. Overall, more than one in three of the surveyed households reported being displaced from their original place of residence at the time of the survey, & a result of the war. This is somewhat larger than recent IOM estimates.<sup>17</sup> The difference may in part be driven by the duration of the phone survey – conducted over the span of about one month in a fluid displacement situation, it may capture some people who are temporarily displaced. According to IOM, as of 17 April, 8.8 percent of people residing in their permanent place of residence report having been displaced earlier on during the war.<sup>18</sup>

The wide majority (83 percent) of internally displaced people reported living in permanent accommodation, such as a house or an apartment, with an additional eight percent temporarily staying with friends or family. Asked about their intentions to leave the country, eight percent of respondents reported having plans to leave the country soon or immediately. Those displaced had a higher proportion than residents (10 percent and 7 percentrespectively). A majority of those intending to leave indicated Poland as their preferred destination.

# HUMANITARIAN ASSISTANCE

Between 15 to 37 percent of the surveyed population across most affected oblasts reported receiving humanitarian assistance.

The highest assistance level was reported in Kharkivska (37 percent) and Luhanska (29 percent) oblasts, followed by Chernihivska (25 percent), Sumska, and Mykolaivska (22 percent). Overall, IDPs are more likely to report receiving assistance than residents across all oblasts. Of the respondents that reported receiving humanitarian assistance, a majority indicated that this assistance came from humanitarian agencies (UN/NGOs) or the government. The specific types of assistance provided is not reported in the survey. The timeframe of the



Map 12: Percentage of respondents reporting receiving assistance by Oblast

assessment is also important to bear in mind when interpreting the results, with scale-up of humanitarian assistance to complement government efforts taking place in the month of April and possibly not fully captured in the survey. Between 24 March and 22 April, humanitarian agencies reported reaching more than 3.4 million people through the provision of assistance and protection services across the country.<sup>19</sup>

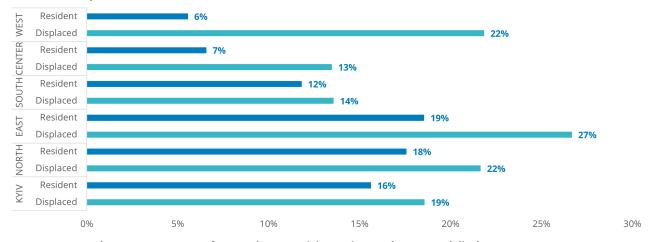


Chart 13: Percentage of respondents receiving assistance by area and displacement status

<sup>17</sup> IOM, "Ukraine - Internal Displacement Report: General Population Survey Round 3."

**<sup>18</sup>** ibid.

<sup>19 &</sup>quot;Ukraine Regional Response Plan and Flash Appeal - April 2022," accessed April 29, 2022, https://reliefweb.int/sites/reliefweb.int/files/resources/UkraineFA\_RRP\_Chapeau2022%20%2812%29\_0.pdf.

#### **METHODOLOGY**

WFP established a remote monitoring system in Ukraine to assess the needs of people inside the country. Data presented in this report were collected through computer-assisted telephone interview (CATI) technology. A random digit dialling (RDD)<sup>20</sup> approach was used to collect a simple random sample with quotas at the oblast level (first-level administrative division). All mobile network operators active in the country were included within the sampling frame.



Map 13: Sample size by Oblast

A total of 4,741 respondents were interviewed between 10 March and 12 April, with a minimum sample size of 155 respondents per oblast. The sample size per oblast was calculated to allow a 94 percent precision and 90 percent confidence level when the food security prevalence is 30 percent. Data collection was not feasible in Krym and Sevastopilska. In addition, the minimum sample size was not achieved in Luhanska due to the security situation. Results from Luhanska are indicative only with 88 percent precision and a 90 percent confidence level at a food security prevalence of 30 percent. For sample disaggregation by oblast see Map 13.

The sample was weighted using the most recent population figures extrapolated using the IOM displacement estimates for Ukraine.<sup>21</sup> Given the small sample size in Luhanska, the sample weight for this was trimmed to the second-highest weight in the dataset. Analysis was done using SPSS version 28.

Information analysed in the CATI survey was triangulated with the findings from a WFP rapid web survey. Random Domain Intercept Technology (RDIT)<sup>22</sup> was used to collect a random sample of 4,627 respondents across the country. The data was collected between 11 March and 5 April and the sample size was representative of the area level (Kyiv, East, West, Central, South, and North).<sup>23</sup>

Data presented in this report is coming mainly from the CATI survey, while web surveys were used for triangulation.

Centre: Cherkaska, Kirovohradska, Poltavska, Vinnytska

East: Dnipropetrovska, Donetska, Kharkivska, Luhanska, Zaporizka

Kyiv: Kyivska

North: Chernihivska, Kyivska, Sumska, Zhytomyrska

South: Crimea, Khersonska, Mykolaivska, Odeska, Sevastopol

West: Chernivetska, Ivano-Frankivska, Khmelnytska, Lvivska, Rivnenska, Ternopilska, Volynska, Zakarpatska

<sup>20</sup> Random digit dialing or RDD is commonly used to conduct general population studies, as it allows researchers to create a sample frame that represents everyone with access to a phone in a population, rather than only those who are listed in a phonebook or have shared their phone number with another source. (see https://www.geopoll.com/blog/what-is-random-digit-dialing/)

<sup>21</sup> IOM, "Ukraine - Internal Displacement Report: General Population Survey Round 3."

<sup>22 &</sup>quot;Random Domain Intercept Technology," RIWI (blog), accessed April 26, 2022, https://riwi.com/technology/.

<sup>23</sup> The oblasts were grouped in the following areas:

#### **ANNEX 1: MEASUREMENTS**

#### REMOTE CONSOLIDATED APPROACH FOR REPORTING INDICATORS OF FOOD SECURITY

Food security indicators were aggregated to form the remote-CARI which is an approach used to report on the population's overall food security status using remote surveys. This composite indicator is used to determine the number of food insecure people by assessing two dimensions: the current food consumption status of households and the current coping capacity of households to meet future needs, including economic capacity.

The food consumption status of household is measured by the food consumption score and reduced coping strategy index; the current coping capacity of households to meet future needs is measured by income source and change in income and livelihood coping measured by livelihood coping strategies.

#### **FOOD CONSUMPTION SCORE**

The food consumption score is a proxy indicator that measures dietary diversity and frequency of the household consumption of nutritionally important food groups during a seven day recall period. Based on defined thresholds, households are grouped into three categories: poor, borderline and acceptable food consumption.

- Poor food consumption: Households that are not consuming staples and vegetables every day and never or very seldom consume protein-rich food such as meat and dairy.
- Borderline food consumption: Households that consume staples and vegetables every day, accompanied by oil and pulses a few times a week.
- Acceptable food consumption: Households that consume staples and vegetables every day, frequently accompanied by oil and
  pulses, and occasionally meat, fish and dairy.

#### REDUCED COPING STRATEGIES INDEX

The consumption-based Coping Strategies Index (rCSI) measures the frequency and severity of coping mechanisms adopted to meet basic food needs, using a seven day recall period. A higher rCSI score indicates that more frequent and/or extreme coping mechanisms are adopted. The rCSI is impacted by short-term needs, combined with seasonality. It is important to note that in sudden periods of food shortfalls (and at the onset of emergencies) households tend to adjust their food consumption reflecting consumption-based coping. If the situation persists or worsens then they would start changing long-term behaviours that would impact the livelihood coping strategies.

#### INCOME SOURCES AND CHANGES IN INCOME

The household Income Sources, and Changes in the Level of Income were measured to better understand the economic vulnerability of households. This combined indicator is used to measure households' economic capacities in remote surveys which cannot accommodate detailed household expenditure questions. Sources and levels of income are categorized into four categories as per the below:

- · Regular employment (formal labour or self-employed) no change or increase due to conflict
- Regular employment but reduced income or informal labour/ remittances no change/ increase due to conflict
- Informal labour /remittances but reduced income due to conflict
- No income, dependent on assistance or support

#### LIVELIHOOD COPING STRATEGIES

The Livelihood Coping Strategies indicator was adjusted for the purpose of this survey to measure the extent of livelihood coping that households need to utilise as a response to a lack of resources or safety during the 30 days before the survey. Given the dynamic and highly fluctuating context in Ukraine, the number of mandatory livelihood coping strategies used to measure the standard indicator was reduced to only capture the reliance on certain individual coping strategies. Strategies and response options were also contextualised to align with recent shocks experienced by the local population. The adjusted indicator considers both the displacement status of households in Ukraine and the reliance on the two livelihood coping strategies but also households that were unable to do so because they were already exhausted in the past or had to abandon valuables when fleeing conflict.

- Stress coping: households that applied either of the coping strategies.
- Crisis coping: households that are displaced and applied either of the coping strategies.
- Emergency coping: households that are displaced and applied both coping strategies.

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