This Ukraine Human Development Update summarizes the cumulative effects of Russia’s invasion of Ukraine, provides an overview of World Bank support, and synthesizes findings from the third round of the Rapid Damage and Needs Assessment (RDNA3, February 2024) on damage and losses incurred between February 24, 2022 and December 31, 2023, as well as estimated needs for reconstruction and recovery in the health, education, and social protection and livelihoods sectors. The RDNA3 was conducted jointly by the World Bank, the Government of Ukraine, the European Union, and the United Nations and supported by humanitarian and development partners, academia, civil society organizations, and other partners.

Three rounds of the RDNA assessment showed that damage, direct costs of destroyed or damaged physical assets and infrastructure, in the human development sectors increased from US$ 4.9 billion (RDNA1, February 24, 2022 - June 1, 2022) to US$ 7.1 billion (RDNA2 covering the year following the invasion) and reached over US$ 7.2 billion as of February 2024 (RDNA3). Disruptions to services and additional expenses associated with the invasion collectively measured as losses increased from US$ 57.5 billion (RDNA1) to US$ 83.0 billion (RDNA2). RDNA3 revealed that losses amounted to US$85.4 billion. Reconstruction and recovery needs in the three sectors evolved from US$ 45.0 billion to US$ 68.8 billion and US$73.6 billion within the same period.

The Listening to Ukraine Household Phone Surveys conducted by the World Bank, reveal that despite the invasion and resulting shocks, Ukraine continues to demonstrate remarkable resilience in maintaining essential services.

- **Health.** The percentage of healthcare facilities reported as fully operational increased from 87% in the second quarter of 2023 to 91% in the last quarter of 2023. Between 85% (April 2023) and 92% (December 2023) of clinics were reported as fully open each month. Nearly 80% of respondents stated that they are satisfied with the services they have received.

- **Social protection.** Around 97% of old-age pensions and 85% of social assistance transfers continued to be paid on time. Without the continued, expanded, and timely payment of these transfers, the share of people living in poverty, as measured by the national standards, could have risen above 38% in 2023.

- **Education.** According to the survey findings, at least 89% of children aged 6-18 were enrolled in school. 72% of students relied entirely on online learning in areas under active hostilities, compared to 7% in other areas. Satisfaction with remote learning was lower in the war-affected areas: 45% of households rated online learning as satisfactory, compared to 56% of households in other areas (World Bank, May 2024).

Digital systems play a crucial role in ensuring that health, social protection, and education services continue operating. Ukraine has made significant investments in digital solutions, allowing remote access to telemedicine, online education, cash transfers and payments, and other digital services. During Russia’s invasion, digitalization helps maintain service continuity when physical infrastructure is damaged or when it is unsafe to access services in person. Digital systems facilitate the collection, processing, and analysis of data to inform decision-making and target interventions where they are needed most. This Human Development Update highlights how digital transformation helps Ukraine remain resilient in the face of invasion.
From February 24, 2022, which marked the start of the invasion, to April 2024, the Office of the UN High Commissioner for Human Rights recorded 32,100 civilian casualties in Ukraine, of which 10,946 were deaths and 21,154 were injuries. Around 95% of the injuries and 84% of deaths were caused by explosive weapons with wide-area effects (OHCHR, April 2024).

Attacks on healthcare infrastructure continue to hinder access to healthcare. Between February 24, 2022, and May 18, 2022, 1,789 attacks affected 1,554 hospitals and other healthcare facilities, accounting for 66% of the damaged facilities worldwide within this period (WHO SSA, May 2024).

Recent data reveal that ambulance workers and health transport personnel experience a risk of injury and death that is three times higher than that of other healthcare service workers. Out of the 68 attacks verified by WHO during the first quarter of 2024, almost 20% targeted Emergency Medical Services (WHO, April 2024).

The RDNA3 report indicates that the invasion has resulted in approximately US$1.4 billion in damage to the health sector in Ukraine, with the largest share of damaged facilities located in Donetsk, Kharkiv, and Luhansk oblasts. Compared to RDNA2 (RDNA2, March 2023), the number of damaged facilities has increased by 27%. As of February 2024, damage or destruction affected 12.5% of all health facilities in the public sector. The total estimated loss, including losses to the population’s health due to forgone care and increased public health threats, is US$17.8 billion. The total reconstruction and recovery needs of the health sector are estimated at US$14.2 billion for the next 10 years. Of this amount, US$8.2 billion is required to reconstruct and refurbish damaged health facilities to address increased health needs resulting from the war (RDNA3, February 2024). As of April 2024, the Government of Ukraine, with the support of international partners, has reconstructed 512 facilities and partially restored another 358 (CoMU, April 2024).

The invasion creates new challenges and barriers to accessing healthcare, heightening the health risks, especially for those already vulnerable, such as the elderly and people with disabilities. According to the 2023 Multi-Sectoral Needs Assessment (MSNA) findings, every third (35%) of assessed households had "severe or above needs" in the health sector. Additionally, a higher percentage of households headed by individuals over 60 years old (46%) and female-headed households (38%) had living standard gaps related to the health sector compared to households headed by individuals aged 18-59 years old (29%) or male-headed households (31%) (USAID and REACH, January 2024). The latest General Population Survey by the International Organization for Migration (IOM) shows that 29% of IDP families have at least one member with a disability, and around 45% of IDPs are chronically ill (IOM, February 2024). Around 4% of registered IDPs are persons with certified disability (IOM, March 2024). Among respondents who reported a lack of access to essential goods and services, 32% of IDPs mentioned a lack of access to medicines and health services (IOM, February 2024).
The invasion and resulting shocks adversely impact the mental health of Ukrainians. In the third round of the study on mental health, the proportion of respondents who rate their mental health as “unsatisfactory” has increased from 9% in 2022 to 13% in 2024. Overall, 36% of respondents consider their mental state “satisfactory”, and 51% assess it as “average”; this level has remained consistent at around 50-51% since mid-2022. Around 78% of respondents have never visited a psychologist or psychotherapist, while 40% feel the need for psychological help. At the same time, only 8% have sought help from a specialist, although this percentage has increased from 5% in 2022. (GoU, USAID, Gradus, March 2024).

The 2023 report of the National Health Service of Ukraine (NHSU) shows that Ukraine manages to keep public healthcare services operational while adapting and innovating them. In 2023, the Program of Medical Guarantees (PMG) focused on improving mental health services and enhancing rehabilitation packages. Over 22 million patients received medical care through 42 service packages adjusted to accommodate evolving needs. The PMG 2023 contract volume amounted to over UAH 133 billion. Around 257,600 patients, both adults and children, received rehabilitation services under the PMG at 383 outpatient and 256 inpatient facilities. Furthermore, over 117,600 patients received mental health services at 782 primary healthcare facilities (NHSU, May 2024). The PMG, expanded in 2024, now includes 44 service packages. The program’s 2024 budget is over UAH 159 billion, of which UAH 5.2 billion is allocated for reimbursable outpatient medicines (Government Portal, January 2024).

Amid Russia's invasion, Ukraine’s healthcare system is progressing towards digital transformation to improve access to high-quality and affordable services, develop solutions and tools to ease the administrative burden on healthcare workers, and introduce management tools to inform data-based decisions (MOH, January 2024).

The eHealth, is a nationwide electronic health system that manages medical information. As of 2024, it includes a centralized database that contains beneficiary registries, patient health records, referrals, and prescriptions, as well as over 35 Management Information Systems (MIS) created by the leading national IT developers. These systems enable digital services for healthcare facilities and medical staff. The user-friendly patient interfaces for these MISs that are interoperable with the central database have yet to be developed (Government Portal, May 2024).

The eHealth is one of the largest digital systems in Ukraine. As of the end of 2023, it contained data on more than 35 million patients, over 350,000 healthcare workers, over 16,000 healthcare facilities, and 3.7 billion electronic patient health records. Based on this data, the NHSU implements the PMG while minimizing potential fraud through data e-verification. The availability of real-time data on provided services at the level of the provider is crucial for designing and modifying strategic purchasing arrangements and informed decision-making.

In 2023, with the support of national and international partners, the NHSU implemented eight projects to develop eHealth functionality for: rehabilitation based on the International Classification of Functioning, Disability, and Health and patients’ rehabilitation plans; expanding reimbursement programs for palliative patients, patients in the post-transplant period, and glucose test strips; patient categorization to contribute to efficient clinical assessment; and e-prescription for all prescription medicines and those financed from the local budgets (NHSU, May 2024).

In 2023, the NHSU continued developing its SAP-based MIS, which enables the improvement and efficiency of automated contracting, reporting, and budget management processes under the PMG. The reporting of primary healthcare providers and pharmacies transitioned to SAP-based processing (NHSU, February 2024)
Russia’s invasion of Ukraine continues to impose a severe humanitarian and economic toll. More than 27 months of war (Day.alerts.in.ua, May 24, 2024) have caused significant civilian casualties, an unprecedented migration crisis, substantial loss of livelihoods, widespread destruction of infrastructure, and disruptions in the provision of essential services needed to build and protect human capital.

Since February 24, 2022, over 24% of the pre-war population have been forced to leave their homes in search of safety. As of May 2024, out of 41.1 million Ukrainians (Ukrstat, February 1, 2022), 8% were internally displaced, and approximately 16% had fled the country. Over 3.4 million people remain displaced within Ukraine (IOM, March 2024). The majority of IDPs are women (60%). Half of the internally displaced are of working age (51%) and 21% are 60 years old or older (IOM, April 2024). More than 80% of IDPs have been displaced for over a year, with the average length of displacement being 510 days (IOM, February 2024).

An estimated 6.5 million Ukrainian refugees are recorded globally, with approximately 5.9 million in Europe (UNHCR, May 2024). Around 40% of refugees have been unable to visit Ukraine since their displacement due to security concerns, lack of funds or documentation, and the fear of losing their legal status in host countries. The results of the intentions survey conducted by the UN Refugee Agency indicate a growing trend in short-term visits over time: around 1.8 million refugees (39%) reported visiting Ukraine at least once since their displacement. The most common reasons reported by refugees for traveling back to Ukraine are to visit relatives or friends, access to healthcare, and obtain documentation (UNHCR, February 2024).

The impact of the invasion related to social protection and livelihoods is significant. According to the RDNA3, the damage to social protection infrastructure is estimated at US$0.2 billion, and total losses are estimated at US$60.8 billion. These losses result from the widespread loss of jobs and household income, leading to higher poverty rates and increased expenditures under existing means-tested social protection programs. Additionally, there is an increased need for programs such as survivor’s benefits, payments, and rehabilitation services. The estimated needs in this sector amount to US$44.5 billion over 10 years (RDNA3, February 2024).

Socio-economic consequences of the invasion are becoming more evident with growing poverty, declining human capital, and widening inequalities. Poverty has increased from 5.5% in 2021 to 24.1% in 2022, pushing an additional 7.1 million people into poverty (World Bank, Fall 2023). Ukraine’s economy shows modest growth, estimated at 4.8% in 2023. Inflation has decreased from 26.6% at the end of 2022 to only 4.7% in January 2024. However, there are increasing macroeconomic risks due to the continuation of hostilities and uncertainty about external financial assistance. If these risks materialize, policy adjustments may be necessary. While household incomes have increased along with economic growth, many people report they are worse off financially than before the invasion (World Bank, Spring 2024).
Further economic recovery may be constrained due to the lack of workforce, which has dropped by 10.4% since the start of the invasion. The country will require 8.6 million additional workers in the upcoming years to meet its economic growth objectives (ILO, 2024). Between March 2022 and December 2024, the proportion of the self-reported working population increased from 22% to 62%, while the percentage of unemployed individuals decreased from 33% to 28% (Gradus, January 2024). Around 15% of women aged 18-25 and 22% of women aged 26-50 report doing only unpaid work, such as housework and looking after children or other persons, compared to men in both age groups (1%). This demonstrates the existing gender disparities and biases regarding housework (REACH, January 2024).

According to the MSNA, more than half (56%) of assessed households have a "severe" or higher living standard gap related to livelihoods. Households with a member with a disability are even more vulnerable, with a 70% likelihood of a "severe" or higher living standard gap, compared to 50% for households without a person with a disability. Furthermore, 70% of households headed by individuals over 60 years old report a "severe" or higher living standard gap (USAID and REACH, April 2024).

The IOM's report on income, employment, and social assistance suggests that since the start of the invasion, Ukraine's population has seen a significant drop in reported monthly income. The percentage of people in very low-income households (with monthly income per person below UAH 3,000) has risen from 21% to 30%. Over 52% rely on salaries as the main source of income, indicating that regular work remains crucial for their household income. The second most common source of income is pension (29%). Finally, irregular earnings, occasional work, and short-term jobs are reported by 6% of individuals as their primary source of income.

The majority of respondents (64%) reported receiving regular financial support and other forms of assistance from the government. A high proportion of IDP households reported receiving government assistance, with 85% stating they received government support. This highlights the focused social protection efforts aimed at displaced populations. A lower percentage of returnees and non-displaced persons reported receiving government support, with 51% and 63%, respectively (IOM, April 2024).

To protect the poor and vulnerable, the government continues to provide social benefits, expand the network of social service providers, and develop digital systems to enhance the administration of benefits and services:

- The Unified Information System of Social Sphere (UISSS) of the Ministry of Social Policy (MoSP) was designed to integrate all types of social support within a single digital environment. Following the recent updates, the system now incorporates 12 types of benefits. The Single Social Registry, which is at the core of the UISSS, allows a centralized accumulation of the data related to all social protection interventions provided to each beneficiary, including beneficiary status, eligibility for social support, and benefits and services provided (Government Portal, January 2024).
- The Diia portal, which has over 20 million users (Diia, January 2024), enables online enrollment in six social assistance programs (including IDP support, Housing and Utilities Subsidy program, adoption grant, and assistance for single parents, sick children, children with disabilities, and those disabled since childhood), pension enrollment and recalculation, and unemployment status applications (Diia, May 2024).
- Digitalization of social services includes launching the digital Registry of Social Service Providers and Beneficiaries and introducing digital solutions for case management (Government Portal, January 2024).
- The automated system good.gov.ua launched by the MoSP simplifies the importing and managing humanitarian aid and cargo, making the processes transparent while reducing bureaucracy (CoMU, February 2024).
The invasion is having a devastating impact on Ukraine’s children and youth. According to the data verified by the UN, since February 24, 2022, at least 1,993 children have been killed or injured, averaging 2.4 child casualties per day (OHCHR, April 2024). Ukrainian authorities have recorded 1,891 child casualties, including 546 killed, and have reported at least 2,019 children missing (Children of War, May 2024). The actual numbers may be significantly higher.

Of the 7.4 million pre-war child population up to 17 years old, approximately 1 million children are internally displaced, and around 2 million have fled abroad with their families (UNICEF and KSE, February 2024).

The ongoing hostilities have severely impacted the education sector, greatly disrupting the lives of young learners. According to UNICEF, in 2023, 5.3 million children faced access barriers to education, including 3.6 million children directly affected by school closures. This places children in Ukraine at risk of losing critical years of schooling and social development (UNICEF, January 2023).

As of May 2024, the number of damaged and destroyed educational institutions has increased to 3,798 (over 14% of all such institutions in Ukraine), with 365 completely destroyed. (MoES, Save Schools, May 2024). Compared to May 2023, the number of damaged and destroyed institutions increased by 16%.

The RDNA3 has revealed substantial damage and losses in Ukraine’s education and science sectors. Between February 2022 and December 31, 2023, 13% of the education infrastructure was damaged or destroyed, representing an estimated damage of US$5.6 billion. While schools accounted for most of the damage, with 1,888 institutions affected, tertiary and research institutions faced higher damage rates, with 21% and 31% of the total number of institutions damaged or destroyed (RDNA3, February 2024).

The invasion is causing economic, learning, and research losses in the sector, estimated to be US$6.9 billion. The combination of online learning, stress, and trauma is leading to substantial learning losses for Ukrainian students. Comparing PISA 2022 and PISA 2018 results shows a clear deterioration in the proficiency of 15-year-olds in mathematics, reading, and science, equivalent to two years of schooling (OECD, MoES, and UCEQA, 2023). The accumulation of learning losses since February 2022 amounts to US$5.5 billion. Still, this figure will grow over the working life of today’s students, negatively impacting their income potential and leading to additional billions in losses (RDNA3, February 2024).

The needs related to infrastructure reconstruction and restoration of high-quality in-person education are estimated at US$13.9 billion for 2024–2033. The reconstruction of educational institutions is expected to cost US$9.8 billion over 10 years. The costs of restoring education service delivery are estimated at US$4.1 billion. A large share of needs is dedicated to constructing bomb shelters and interim measures to provide access to in-person education (such as school transportation and digital learning centers). In addition, flexible catch-up programs and psychosocial support are necessary to mitigate learning losses and to ensure that students have the tools to recover from missed instruction and trauma (RDNA3, February 2024).
In-person learning remains disrupted by a lack of equipped and accessible bomb shelters with enough space for all students. The government and local authorities have prioritized the establishment of bomb shelters in educational institutions across the country. The percentage of educational institutions equipped with bomb shelters increased from 68% in December 2022 to 80% in July 2023, including 95% of vocational educational institutions, 94% of institutions of pre-higher and higher education, 75% of schools, and only 55% of pre-school education institutions. (MoES, July 2023; RDNA3, February 2024). As of the beginning of 2024, 88% of schools and 93% of students and teachers had access to shelters, and the government aims to reach 100% coverage (Government Portal, January 2024).

A recent study by the State Service of Education Quality (SSEQ) shows that in the 2023/2024 academic year, 53% of secondary schools were operating fully in-person classes, with 19% functioning exclusively online and another 28% working in a blended format (SSEQ, May 2024). This shows an increased access to in-person learning compared to May 2023, when the proportions of schools providing in-person, online, and blended learning were 30%, 34%, and 36%, respectively (World Bank, June 2023). According to the SSEQ, approximately 20% of students do not have permanent access to learning in the current academic year. In the south of Ukraine affected by the hostilities, this percentage increases to 30% (SSEQ, May 2024). Findings of MSNA reveal that children with disabilities enrolled in formal school were over three times more likely (17%) not to attend school than children without a disability (5%) (USAID, REACH, April 2024).

The invasion has highlighted the importance of the ongoing digitization of education, which was already underway before the outbreak of hostilities. The Ministry of Education and Science (MoES) collaborates closely with the Ministry of Digital Transformation (MoDT) to elaborate a strategy for digitalizing the education system across all educational levels (Ukrinform, September 2023).

The MoES continues modernizing its integrated education management information system (EMIS), known as AIKOM, to transform it as the building block of a complex, single, national EMIS architecture able to progressively integrate and modernize all existing digital platforms and services across all levels of education around a set of standardized and interoperable core datasets (World Bank, June 2023). AIKOM, developed with the support of the World Bank, has integrated seven EMISs to offer a wide range of administrative, managerial, and data-processing services (MoES, May 2024; AIKOM, May 2024).

The All-Ukrainian Online School (AUSO) platform has been the flagship initiative of the MoES to maintain access to education during the war. The AUSO platform is the core learning management system that supports distance and blended learning for students in grades 5-11, as well as methodological support for teachers. The platform was created by the Osvitoria NGO at the request of the MoDT, the MoES, and the Ukrainian Institute for Education Development (World Bank, June 2023). Currently, the platform, with over 400,000 users from 120 countries worldwide, is at the forefront of education continuity (Osvitoria, May 2024).

In 2023, the President of Ukraine introduced an innovative information and communication digital system designed to automate the management of secondary educational institutions called the “Mriia” application (President of Ukraine, September 2023). According to the Cabinet of Ministers Resolution that regulates the operation of the Mriia (CoMU, February 2022), in the initial stage, it will include: a student's profile, information on performance, and needs-based development programs; multimedia educational materials; collection, processing, and accumulation of data related to the individual educational process; and Mriya-ID, a unique student identification document.

The MoES and the MoDT are collaborating to develop guidelines for integrating artificial intelligence tools in schools. These guidelines will be implemented at the start of the 2024/2025 academic year (MoES, May 2024).
Russia’s invasion has taken a grave toll on Ukraine’s human capital gains. At the same time, the Government of Ukraine has shown remarkable resilience in keeping essential health, education, and social protection services functioning and adapting policy to the emergency context. This has been supported by financing and technical assistance from the World Bank.

Since February 24, 2022, the Bank has provided substantial surge financing for human development through both new and repurposed lending. This included:

- **US$90 million** Additional Financing to the Ukraine Emergency COVID-19 Response and Vaccination project to finance the purchase of vaccines.
- Restructuring of the Improving Higher Education for Results, Serving People Improving Health, Social Safety Nets Modernization, and Eastern Ukraine: Reconnect, Recover, Revitalize (3R) projects allowed to reallocate **US$300 million** to finance academic and social scholarships, emergency medical equipment, and social assistance to low-income families and IDPs.
- A new FREE Ukraine Development Policy Operation (DPO), which eventually exceeded **US$1.6 billion**, provided budget support to essential services, including in human development.

The Public Expenditures for Administrative Capacity Endurance (PEACE) in Ukraine project, which combines loans and grants, currently totaling over **US$25.5 billion**, from the World Bank and other development partners, helps to meet financing needs for the salaries of civil servants, teachers, health workers, and first responders as well as finance social protection programs.

In December 2022, the Health Enhancement and Life-Saving (HEAL Ukraine) project was approved. It funds essential primary care services, addresses pressing mental health and rehabilitation needs, provides affordable medicines, and repairs damaged healthcare facilities. To date, the project has disbursed over **US$129 million**, helped provide a course of rehabilitation treatment to almost 350,000 people and mental health services to over 265,000 people, extended medical examination to over 3.2 million patients, delivered more than 4.3 million vaccine doses to children under 7, provided 4.7 million Ukrainians with free or low-cost medicines. Over 8,000 primary healthcare staff were covered by the course to address gender-based violence.

The Investing in Social Protection for Inclusion, Resilience, and Efficiency (INSPIRE) project approved in November 2023 aims to enhance the targeting, efficiency, and sustainability of the social safety net by supporting structural reform measures and financing 29 types of social assistance benefits for the most vulnerable. By February 2024, INSPIRE disbursed **US$1.2 billion** to the state budget.

Since February 2022, working with development partners, the World Bank has mobilized over $42 billion in financial support to Ukraine, of which nearly $36 billion has been disbursed to date (World Bank, May 24, 2024). 95% of this financing was provided by development partners.