



Cost-Benefit Analysis of Mental Health and Psychosocial

Support and Economic Recovery in Ukraine

Executive Summary

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Prepared for: People in Need



Photo Credit: People in Need

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This study was commissioned by People in Need (PIN) and conducted by FHI 360. **Dr. Alec Hansen**, Senior Economist at FHI 360, served as the team lead and was supported by subject matter experts, including: **Dr. Adam Brown**, Professor, The New School for Social Research (United States); **Maryna Hrudii**, Public Health Specialist (Ukraine); **Dr. Ellen Moscoe**, Economist and Public Health Specialist, Georgetown University (United States); and **Dr. Roman Semko**, Professor of Economics, Kyiv Mohyla Academy (Ukraine).

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Foreword

The full-scale invasion of Ukraine by Russia has led to profound violence and loss, impacting every sector of society. A considerable portion of the population has been directly or indirectly exposed to active hostilities and attacks and knows someone who has either been injured or killed as a result of the war. Although Ukrainians have demonstrated tremendous resilience in the face of danger and uncertainty, decades of research have now shown that populations exposed to ongoing war, such as those events taking place throughout Ukraine, increase risk for a wide range of mental health syndromes, such as anxiety, depression, post-traumatic stress disorder, and substance abuse.

Along those lines, general estimates from the World Health Organization (WHO) suggest that roughly 20% of the population will experience some form of mental health disorder associated with war (Charlson, 2019), which would amount to 8.2 million people in Ukraine. A 2022 survey in Ukraine indicated that over 70% of individuals reported that they felt stressed or very stressed in relation to the war and ongoing stressors and uncertainty in the country. It is also expected that certain segments of the population will be at even greater vulnerability for mental health concerns, such as youth whose lives and future are especially uncertain due to the war and the loss of loved ones, historically marginalized groups such as the LGBTQI+ community, veterans, internally displaced persons, and other populations facing high levels of stress that have been greatly amplified by the impacts of war.

Although it is hard to predict exactly how many people will be in need of mental health and psychosocial support (MHPSS) services, it is undeniable that many people will struggle with symptoms linked to the war and its ongoing aftermath. Importantly, Ukraine has been on the leading edge of a national response to the wellbeing of its citizens. Whereas historically, Ukraine has emphasized institutional forms of care, the First Lady of Ukraine has led the development of a comprehensive national mental health program with a strong focus on community-based models, local input and participation and a culture of mental health care. These approaches are highly in line with recommendations from the WHO and evidence supporting the benefits of stepped-care models and the mainstreaming of mental health across sectors promoting prevention and culturally responsive responses.

Given the long history of suffering following war, it should be obvious to entities overseeing the response and recovery of a country from war, including its economic recovery, that investments will be needed in mental health. Of course, investments in mental health are not only important for the generation directly impacted by war, but future generations as well. Nevertheless, this has not been the case in most contexts. Mental health is often one of the lowest budget priorities during and after war. Moreover, there are often only short-term contributions made to provide immediate mental health assistance without sufficient buy-in to maintain the sustainability of such programs.

FHI 360 and People in Need worked together in partnership to examine the potential economic benefits associated with investments made into MHPSS programming. These careful analyses

provide strong support for both the societal costs of mental health as well as the return on investment when people have access to care and can participate effectively in the economy.

There were a few outcomes that I thought were particularly salient. First, there is a belief that MHPSS interventions cannot be successful in the context of ongoing violence and uncertainty. The findings from this study show this to not be the case. Large effect sizes were observed for those who received some form of MHPSS support. Even more interesting was the decrease in clinical severity among those with the most severe conditions. Although innovations are needed to navigate delivering care in the context of war, it appears that when people engage in programs, there are benefits, especially for those most vulnerable. There is considerable research showing that mental health conditions are among the most common drivers of disability throughout the world (Erskine, 2015). Therefore, in economic terms, this means that not only are people getting potentially life-saving care, but they are also more likely to participate in work and the economy.

Second, people, of course, do not exist in isolation. Those suffering from mental health conditions often live with other individuals who, as a result, may also be negatively impacted by the presence of mental health symptoms. It was quite powerful to see how large an effect there was for programs that addressed mental health concerns among people living with families. As such, these data suggest that the greatest return on investments may come from MHPSS programs seeking to engage a family system, rather than an individual.

Finally, these findings suggest important positive "spillover effects" of MHPSS strategies. On the one hand, the negative impacts of absenteeism seem to be higher within individuals' social networks¹ but conversely, so too are improvements in mental health and workforce participation. Importantly, investments in mental health are seen not as taking away resources from the economy but are a vital catalyst for economic growth and resilience.

A final note about this report. I have been fortunate to work with many organizations and stakeholders throughout my career. Even when there is consensus on the importance of a study, each stakeholder's goals and aims can make it challenging for the entire team to navigate the steps needed to succeed. This was not the case throughout this report. I was truly impressed by the ways in which the various stakeholders worked collaboratively to identify and collect data, carry out analysis, and draw on a wide range of disciplines and lived experiences to interpret the findings. I think this partnership can be held up as a best practice example of a global mental health collaboration and feel immense gratitude for being able to contribute to this team during these very challenging times.

¹ Studies indicate that employees may be more likely to take leave when their close colleagues do, due to social norms, shared attitudes, or even informal coordination. This phenomenon is sometimes referred to as "absence contagion," where absenteeism spreads through workplace relationships. See Čikeš (2018).

In summary, the mental health gaps throughout the world are enormous, especially in places ravaged by war. It is my hope that this report serves as a powerful motivator for those working on closing the investment gap in mental health, to see how clearly resources directed at mental health will not only provide necessary care but also serve as a smart economic investment.

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Executive Summary

People in Need (PIN) is a Czech nonprofit headquartered in Prague, dedicated to humanitarian aid, development projects, education, and human rights programs worldwide. Operating in Ukraine since 2003, PIN initially focused on human rights but expanded in 2014 to provide relief for war-affected populations. Immediately following Russia's February 2022 invasion, PIN scaled up operations and became a key international non-governmental organization (INGO) supporting war victims, offering emergency aid such as food, shelter, water, sanitation, financial assistance and psychosocial support (PSS).

PIN's Mental Health and Psychosocial Support (MHPSS) program includes mobile psychologists trained in effective evidence-based methods (PM+, SH+, and CETA) for stress management and trauma recovery. It also runs a 24/7 hotline and rapid response teams aiding victims of shelling or crises, strengthening community resilience where possible.

At a time of great uncertainty for Ukraine and the world, setting priorities for governments and non-governmental organizations (NGO) alike is a daunting challenge. The world sees glimpses of the daily physical, mental, and existential stressors faced by Ukrainians every day. Those outside the country can only imagine how people not only survive but stay resilient under tremendous stress.

PIN's PSS programs provide tools to help those most affected by the war rebuild their resilience and prevent an all-too understandable slide into anxiety and depression. For some, it manifests as a combination of these conditions and PTSD and can lead to a range of social and economic ripple effects.

How can decision makers assess and prioritize mental health services, when they also face needs for reconstruction of housing and infrastructure, new defense capabilities, education and food security? Cost-benefit analysis (CBA) provides policymakers with a framework to consider trade-offs and competing policy priorities in situations where needs outnumber resources. CBA first came into widespread use in 1936, when the U.S. was looking for a better way to set priorities for flood control investment. It offered an objective framework to evaluate the economic costs and benefits, assigning a dollar value to socially desirable activities such as pollution control and water security that were not being addressed by market forces. Thus, it goes well beyond narrower concepts like return on investment (ROI), which normally capture only financial consequences.

This study was commissioned by PIN to provide an objective assessment of its psychosocial support services in Ukraine, focusing purely on the ways in which these services contribute to the productivity of those served. How many of them get back to work, helping to maintain and rebuild Ukraine's threatened economy? How many spend less time needing to care for traumatized family members? How many manage to avoid a descent into a full-blown mental health condition requiring more specialized – and expensive – care and medications? How many suicides are prevented because of a relatively light but very meaningful intervention in their lives? And how does the prevention of a suicide affect the economy? To decide how much

to allocate to PSS versus bridges, schools and electrical grids, it is important to have a sense of its relative economic contribution.

However, PIN's *modus operandi* is not geared to answer such questions from the outset. In order to move quickly, addressing the needs of diverse populations under dynamically shifting situations, PIN does not conduct a formal diagnosis during screening, nor follow up with participants to learn if they are working better, managed to get a job, or how their income was affected.

For this reason, PIN contracted FHI 360 to develop an economic simulation model to estimate the impact of the provision of PSS, leveraging available data. While PIN does not conduct formal diagnostic screenings or long-term follow-ups, their use of the Kessler K10 Scale provides valuable insights into participants' psychological states before and after intervention. Though not a comprehensive diagnostic tool, these assessments enable FHI 360 to approximate mental health improvements and contextualize potential economic contributions based on established research.

The resulting model integrates PIN's screening data with broader studies on the economic effects of mental health disorders, such as absenteeism and workplace productivity declines. By applying recognized effect sizes – parameters that measure the economic burden of depression and other conditions – FHI 360 has constructed a simulated picture of the broader impact of PIN's psychosocial support services.

Several studies are quite relevant. For example, Alonso et al (2011) collected detailed information on the impact of depression on absenteeism covering 121,902 participants in 25 countries, including 4,725 adults in Ukraine. More recent studies, such as Greenberg (2023), focus exclusively on U.S. populations. In such cases, the model applies "effect sizes" as percentage-based adjustments, enabling the results to be extrapolated to Ukraine. Collectively, these studies offer comprehensive coverage of productivity impacts, bolstering confidence in the accuracy of the findings.

The studies that the simulation model relied on had strengths and weaknesses. Most of them were peer-reviewed and derived from clinical research trials. However, very few had been undertaken in Ukraine, most deal with participants with a confirmed medical diagnosis, and none were conducted during wartime conditions. Accordingly, the simulation model required extensive use of interpolations and some extrapolations in order to "fit" the current Ukrainian context. In fact, three versions of the model are presented – one "conservative" version that uses no extrapolations, only interpolations, and thus serves as a lower bound for the results – and two other versions that make careful use of extrapolations to further contextualize the model to the current situation, all of which are documented in this report.

What is a Benefit-Cost Ratio?

The benefit-cost ratio (BCR) is a simple fraction, the total benefits of an activity or investment divided by its total cost. A BCR greater than one indicates that benefits exceed costs, making the investment worthwhile. BCRs for some typical investments made into social sectors are shown in Table 1.

Table 1: Typical Benefit-Cost Ratios

Type of investment	Typical Range of BCR		
Highways or rail systems	1.5 – 4.0		
Solar and wind projects	2.0 – 3.5		
Education programs like early childhood education	4.0 – 7.0		
Vaccination programs	10.0 or above		

Source: World Bank Open Data; Shafiee (2020)

The PIN Simulation Model shows the estimated economic benefits for a 'generalized' participant in the PIN PSS program divided by the average cost for providing those services (see Table 2).

The **"Conservative"** scenario is included not as a realistic assessment of the BCR for PIN activities, but to serve as a lower bound for the estimate. This BCR of **5.9** embodies several unrealistic assumptions, for example that severity of stress levels are clustered around the "likely to have a moderate disorder" scores (K10 ranging from 25-29) and that benefits of treatment do not last longer than 12 months. The conservative estimate provides a benchmark for the BCR using strictly conservative methods of matching the parameters from academic studies to conditions in Ukraine.

The "Expert Opinion" BCR of 11.8 shows the results of allowing some extrapolations, mainly accounting for the severity of conditions facing populations in Ukraine. And the "Multi-Year"

Table 2: PIN PSS Simulation Model Results²

		SCENARIO		
	INDICATOR	Conservative	Expert Opinion	Multi-Year
Direct Workplace Productivity Impacts	Unemployment Reduced	\$ 61	\$ 89	\$ 133
	Higher Annual Earnings	\$ 85	\$ 125	\$ 187
	Absenteeism Reduced	\$ 186	\$ 273	\$ 410
	Presenteeism Reduced	\$ 165	\$ 410	\$ 615
Social & Fiscal Impacts	Future Medical Cost Prevention	\$ 80	\$ 104	\$ 156
	Reduced Family Member Time Needed	\$ 160	\$ 235	\$ 353
	Suicides Reduced	\$ 16	\$ 23	\$ 35
	Value of Referrals		\$ 252	\$ 378
	Sum of All Economic Benefits (US\$)	\$ 752	\$ 1,512	\$ 2,268
	Cost of Intervention (PIN)	\$ 129	\$ 129	\$ 129
	COST/BENEFIT RATIO	5.9	11.8	17.6

Source: FHI 360 calculations

² For ease of exposition, all Ukrainian hryvnia amounts were converted into US dollars using <u>current and historical official exchange</u> <u>rates provided by the National Bank of Ukraine</u> adjusted for the corresponding year.

BCR of **17.6** relaxes the assumption that all benefits from mental health services terminate within 12 months of intervention.

Overall, in the conditions under which PIN operates in Ukraine, the lifesaving and quality-of-life improving services it provides probably fall somewhere between a BCR of 15 – 20. This means that for every dollar invested in community-based psychosocial support services, the purely economic benefits are between \$15 and \$20. While greater precision would be desirable, in practice it would require more data than is feasible to collect in Ukraine at this time; nevertheless, a BCR in that range clearly indicates that these type of services are vital, not only for the well-being of millions of Ukrainians who have been traumatized by the war, but also to help maintain and rebuild the economy.



"THIS STUDY FINDS
THAT FOR EVERY
DOLLAR INVESTED IN
COMMUNITY-BASED
PSYCHOSOCIAL
SUPPORT SERVICES,
UKRAINE'S GDP RISES
BY \$15 TO \$20."

Implications and Recommendations

As shown in Figure 1, the BCR for the PIN Simulation Model is higher than other studies that have been conducted to date.



Figure 1: Range of Benefit Cost Ratios from Other Mental Health Studies³

Source: FHI 360. This table includes BCRs from studies using methodologies comparable to this study.

Apart from the quantitative results, the study also conducted qualitative interviews to better understand the context of PIN's operations. The study highlights the economic burden of mental health disorders, exacerbated by prolonged conflict in Ukraine. War-related trauma increases risks of mental health concerns, leading to workforce disruptions and economic instability. However, data suggests MHPSS programs improve employment stability, reducing absenteeism, presenteeism (low productivity while on the job), lower long-term healthcare costs, fewer suicides, less crime and less disruption to family members.

³ Two studies reviewed, Stelmach (2022) and UNICEF (2023), reported higher BCRs than the PIN model, but their methods are not comparable.

Stepped care models, offering varying levels of mental health support, show benefits across mild to acute cases. Expanding such models, alongside scalable interventions, is vital, especially for displaced or isolated populations. Digital tools and mobile units can bridge accessibility gaps.

Both the WHO and the Inter-Agency Standing Committee's (IASC) Guidelines on MHPSS recommended the mainstreaming of mental health into livelihoods programs and suggest that livelihoods serve as critical forms of psychosocial support for communities impacted by adversity. Although still a burgeoning area of research, several studies have found that the integration of mental health initiatives into livelihood programs leads to a number of positive outcomes (Betancourt et al., 2014; Homer et al., 2022; Reginer, 2007). Additionally, over the past decade the World Bank has increasingly advocated for the greater inclusion of MHPSS strategies into economic programs (e.g. Schinina et al., 2016).

Systems-based strategies are key – addressing individual, family, and community-wide needs. Spillover effects show that when family members receive care, others benefit as well. In areas with limited mental health professionals, self-guided interventions prove effective for mild to moderate depression. Large-scale implementation, in collaboration with PIN and other humanitarian actors, civil society organizations and government providers, could fortify communities, offering prevention and coping resources.

The findings underscore the urgency of integrated, accessible mental health solutions that factor in war-driven barriers while leveraging scalable and community-driven approaches.

The study affirms the economic imperative of investing in mental health interventions, demonstrating their tangible benefits for workforce productivity and national economic stability. Targeted, data-driven, and systemically integrated approaches will further enhance program effectiveness, ensuring that individuals and communities reap both psychological and financial rewards. By prioritizing mental health funding and intervention strategies, policymakers and organizations can foster long-term socioeconomic resilience in crisis settings and beyond.