OptiMedis

Structured Assistance for Ukraine - Crisis Intervention Coupled with Sustainable Structure Building / Health Systems Strengthening

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Summary

Since 2015, the Ukrainian health sector has been undergoing an ongoing reform process with the aim of improving health outcomes and reducing informal payments by patients. With the attack of the Russian armed forces on Ukraine, the massive destruction of the infrastructure (medical facilities as well as the supply of food, energy, medicines, and medical aids), the enormous challenges of the internal refugee flows regarding health care, the psychosocial stress caused by the war, the worries about relatives and other war related impacts, this reform process is under a double burden:

A) The organisation of immediate aid for a reconstruction of a functioning health care system and thus also the building of the population's confidence in a positive future after the war

B) At the same time, however, reconstruction should take place in such a way that it supports the positive goals of the reform process initiated before the war and can be continued in a sustainable manner.

In other words, crisis intervention, reconstruction, and reform towards the "people-centred health care" recommended by the WHO with an orientation towards "health outcomes" must go hand in hand.

OptiMedis has been cooperating with the Kharkiv Expert Group supporting healthcare reform for several years. After an initial visit to the "Healthy Kinzigtal", the foundations for a medium to long-term cooperation were laid over several virtual events. The Kharkiv Expert Group together with the Renaissance Foundation recently conducted a stakeholder analysis in 7 municipalities (hromadas) to identify a group of first pilot municipalities to develop scalable population based integrated care solutions for Ukraine. Effective solutions are then scaled up step by step in the entire Ukraine over the next years. The planned objectives of the pilot project are:

- Primary care providers in the project area have the necessary infrastructure and equipment according to Ukrainian standard specifications
- A participatory decision-making culture for health issues is developed at community level
- The quality of health care at community level is improved.
- A scalable model for integrated community health care is developed

The planned initiative combines immediate help with the need for a long-term recovery programme based on the Ukrainian primary health care strategy.

We propose project implementation in three steps

Step 1: Assessment Step - Situation analysis; 10 – 12 months; Budget: 800’000 – 1 Mio EUR

Step 2: Implementation of local population based integrated care system at municipal level as proposed in phase 1. 3- 4 years; Budget: 10 - 15 Mio EUR

Step 3: scaling up – up to 2 years: 15 Mio EUR

Its volume is calculated for up to 1 Mio for the assessment phase and immediate support as well as up to 15 Mio EUR for health systems strengthening for a period of the next four years. Measures for a scaling up phase would be determined by regular evaluation results of the pilot implementation phase. We assume that the implementation phase generates the expertise in the pilot sites to serve as “centres of excellence” with the necessary training capacity to scale up the intervention in further municipalities.

Context

The current Ukrainian health system: Creation of a National Health Service (NHSU) and current challenges

The foundations of health financing were laid in 2017 with the creation of a National Health Service (NHSU) based on the British model[1] as the single payer for health care services provided by contracted facilities. The previous model of funding health facilities was thereby replaced by a model which funds patient services. Administrative decentralisation has distributed responsibility from the central level to regional (oblast) and sub-regional levels up to the involvement of municipalities (hromada), with extensive autonomy in the design and management of local health structures. The "programme of medical guarantees (PMG)" adopted in 2018 defines the service packages for patient care (currently 38 packages in total).

At the same time, regionally managed health facilities were increasingly transformed into autonomous non-profit care centres with financial and administrative autonomy at the municipal level with direct contractual ties to the NHSU. At the same time, health spending was increased to 5% of GDP, still one of the lowest health budgets in Europe. Although the life expectancy of the Ukrainian population increased in the last years before the war, it is still at the lower end of comparable countries in the European region. Approximately 80% of deaths are caused by non-communicable diseases (NCDs), with a high proportion of cardiovascular diseases. The war, especially the attack on civilian infrastructure and the frequent and prolonged stay in bunkers and makeshift shelters, can lead to a renewed increase in infectious diseases such as tuberculosis.

Since 2021, Ukrainian citizens have had a digital health ID, which makes it possible to link health data from different providers. However, the use of health data for planning and evaluating health services is not widely spread and the decentralisation of primary care services to the municipal level has left municipalities with little ability and capacity for data management and analysis to better plan and develop health and social care services at their level. The traditional fragmentation of services limits collaboration and the development of comprehensive patient pathways.

Medical equipment is insufficient and often outdated, and the supply of up-to-date medical material is slow. International health programmes financed by the World Bank, USAID and Switzerland have brought relief. However, decentralisation has led to unequal distribution and different equipment, especially in primary care.

Primary care is mainly provided by municipal primary health care centres or general practitioners and paediatricians in individual practices. Payment in primary health care is per capita for each patient registered with a family doctor. So far, prevention and the consideration of risk behaviour play a minor role in the prevention and management of chronic diseases.

In recent years, the number of medical staff has decreased due to ageing, but also due to the migration of qualified staff. The greatest loss of staff has occurred in rural regions. Since the onset of the full-scale invasion, the situation has significantly deteriorated. At the same time, in urban areas and particularly in large cities, there is an excess of certain specialized care providers who are not working at their full capacity.

The Russian war of aggression has set back reform efforts considerably. However, the reform agenda remains present in the Ukrainian government's outlines for a reconstruction[2] of the health system. A key factor is the strengthening of primary care.

1 https://apps.who.int/iris/bitstream/handle/10665/349235/9789289051859-eng.pdf?sequence=1&isAllowed=y
2 https://recovery.gov.ua/en/project/program/upgrade-healthcare-system

Project environment

The Kharkiv Expert Group consists of a consortium of the Ukraine-German Medical Association[3] , the ILF law firm and the NGO "Perspectives"[4]. Leading members are Ms Tetyana Gavrysh (klio@ilf-ua.com), Mrs Elena Reshetnyak (elena.v.reshetnyak@gmail.com) and Mr Mykhailo Dovgopol (mdovgopol@gmail.com). The Kharkiv Expert Group has advised the Ukrainian government in the development of the health care reform, especially in the area of community-based primary care and is well known to both the Deputy Minister of Health Mr Oleksii Iaremenko and the German Ambassador Ms Anka Feldhusen (personal communication). Additional partner is the renaissance foundation (IRF)[5] with Mrs. Victoria Tymoshevska

The Kharkiv Expert Group and the International Renaissance Foundation jointly work on the development and implementation of a cost-effective and non-discriminatory health system in Ukraine, and on primary care in particular.

The cooperation with OptiMedis started several years ago with a visit to the "Healthy Kinzigtal" (2018) with the aim of transferring the model of regional integrated comprehensive care to the Ukrainian context. Since then, several working meetings have taken place to explore possibilities for closer cooperation in a concrete project.

The direct impact of the Russian war of aggression on medical care also creates an increased urgency in the development of adapted solutions. This requires both investment in medical material (needs assessment to be done based on Ukrainian standards) in line with Ukrainian standards for primary care and close cooperation with local stakeholders, especially community administrations, as the driving force.

Concept

Interest from seven hromadas

The Kharkiv Expert Group has received letters of interest to participate from 7 hromadas and conducted informational interviews with the applicants, including Bucha, Skvyra, and Obukhiv in the vicinity of Kyiv, with the aim of identifying suitable communities for a pilot phase. The following communities are shortlisted: Bucha, Skvyra, Obukhiv, Poimichna, Mezhivsk, Povkrovske, Korets. (Figure 1)

Figure 1: Municipalities participating in Kharkiv Expert Group.

3 https://www.uaevd.de/
4 http://www.perspectivesua.org/en/
5 https://www.irf.ua/en/

Bucha municipality with its approximately 75000 inhabitants has been identified as one of the target communities. Primary health care facilities have a total staff capacity of 160 employees, with 55 physicians, 63 nurses and 42 other staff. At present 59 402 patients are registered (26926 men, 32476 women), which provides for a ratio of patients per physician of 1080. Additionally, at this stage, there are approximately 7800 internally displaced people (IDPs) living in Bucha municipality.

Figure 2: Patients queuing for drugs and care in mobile health units (from Lithuania) – pictures provided by Kharkiv Expert Group

Other candidate municipalities for phased implementation and who obtained the highest ranking from the interviews are Skvyra (31480 inhabitants), and Korets (24141 inhabitants).

A more detailed assessment of the existing health care infrastructure, equipment, and supplies is planned in order to determine any immediate procurement needs based on Ukraine national standards. However, a request from Bucha administration (annex 1) shows needs of small equipment such as:

- blood pressure measurement devices
- Glucometers and test strips
- Nurse home visiting kits
- Stethoscopes
- laptops for mobile health care services
- Ultraviolet radiators for Upper-Room Ultraviolet Germicidal Irradiation (UVGI systems)[6]

Additionally, electricity generator units are needed to cover for electricity shortages. Additional equipment may be needed to start physical activity programs.

The socio-demographic situation, morbidity spectrum including the prevalence of chronic diseases will be assessed for each municipality to have a realistic picture of needs and the potential for preventive action as well as medical and rehabilitation services. Physical rehabilitation facilities and mental health programs are needed for veterans/ex-combatants who return to these communities as well as for internally displaces people (IDPs); services, which at this stage might not be readily available in the selected communities. There might be a lack of medical specialists following the bombardments and rocket attacks on civil infrastructure. It will be helpful to retain those medical experts, who came to these communities during and after the invasion period.

[6] https://www.cdc.gov/niosh/docs/2009-105/default.html

"Healthy Communities" approach of population based integrated care

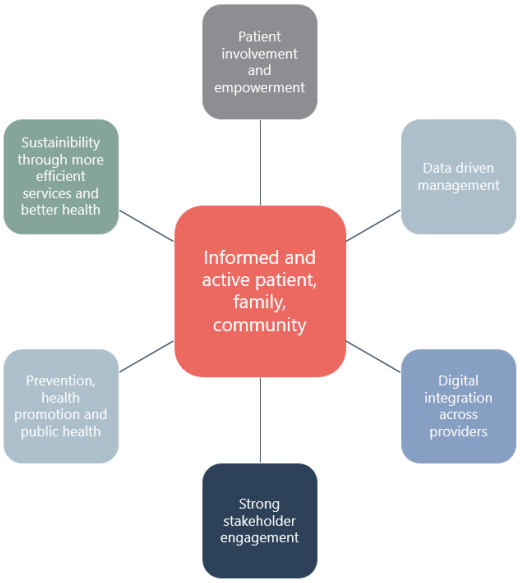
The proposed project will be implemented a "Healthy Communities" approach of population based integrated care in up to three municipalities using different starting points in time for each municipality (phased implementation) whilst collecting data in all participating municipalities from the start. Implementation starts in Bucha municipality, the other one or two municipalities need to be identified based on the initial assessment of project candidates. A phased approach is used to provide for additional control groups for the evaluation of the approach prior to scaling up. Additionally, it permits to use learnings from one implementation site and transfer it to the next one.

Since a considerable number of health facilities (both out- and in-patient) were partially or completely destroyed as part of Russian aggression, there is often limited or no chance for hospitalization and timely access to specialized care. As Russia continues its attacks on civilian infrastructure, electricity generation and transmission facilities, gas pipelines and stations, a further deterioration of the currently existing conditions should be expected. In this context, adapting and implementing the "Healthy Communities" approach may help prevent negative consequences of unaddressed health complications in individuals with chronic conditions, people with mental health issues and others. The "Healthy Communities" model will be adapted to the varying conditions in the selected communities.

OptiMedis Model for population based integrated care

Project activities will be developed around the 6 pillars included in the OptiMedis Model (figure 3). The main principle is to put population and patient needs at the centre of the community health and social system. The informed and active citizen defines her/his health and social service needs, which are provided as close as possible to home. For chronic care patients this requires a continuum of care from hospital to primary, including social care.

Figure 3: OptiMedis Model for population based integrated care



A strong stakeholder engagement is needed to agree on joint objectives and actions and to design care pathways to build the community health and social care pathways. Collaboration amongst key stakeholders such as the community and its citizens, health and social care professionals, preventive care staff and physical activity groups, is important to mobilize citizens and patients. Additional to horizontal integration of service providers at the municipal level, the vertical integration of primary medico-social care with specialist care and hospital services is needed to cover population and patient needs, particularly for chronic care patients with

their need for intermittent specialist consultations. Designing care pathways (see below) might have to include investment and capacity building at hospital levels and emergency services as well.

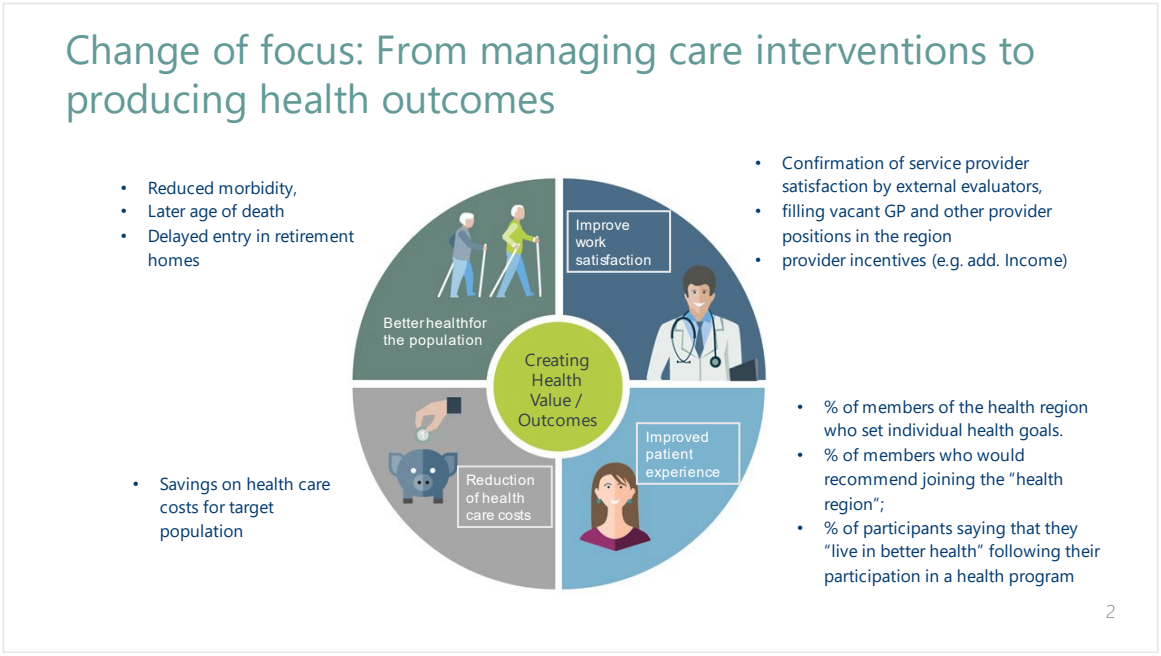
Project implementation needs to be facilitated and coordinated by a local team following the principles of the PDCA cycle (Plan-Do-Check-Act) including joint planning based on a critical assessment (situation analysis = Plan step), the definition of objectives and action plans as well as performance monitoring of the implementation (Do step), the evaluation of project results and critical review of achievements and best practices (Check-Step) and the scaling up of successful approaches and to make them the new routines within the community and beyond (Act step).

The digital integration across providers refers to the sharing of patient information across provider networks to make sure that the right information is available at the right place and the right time within the network (data follows patient). Ideally this happens through the integration of data systems to assure the timeliness of the availability of that information. This is essential for chronic care patients, particularly for multimorbidity patients with their complex care needs. As part of the situation analysis, the availability, and options for these type of systems needs to be evaluated.

The patient involvement and empowerment are important instruments to enable patients to make informed decisions about their health goals and care needs. Patients need to participate in the design of medico-social care in terms of the type and quality of services available. The municipality within the Ukraine primary health care system has a key role to play. Relevant tools must be developed either based on local and international best practices, which are adapted to local needs or by developing them locally through intersectoral collaboration. Patient involvement is also a key factor to evaluate the services provided and generate innovation within the municipality.

The collaboration at municipal level needs valid data to reflect on the existing situation and accompany project implementation across the management cycle (PDCA). Data driven management is based on available data or mergers of different available data bases. Investing in health and social care requires the identification of successful approaches and best practices in order to make the best use out of scarce resources. Integrated population-based services require continuous innovation to make services better and more effective in generating positive health outcomes. Outcomes should be interpreted in a broader sense in terms of what added value a service generates for the population, the patient, the professionals and in terms of efficient use of resources. OptiMedis makes use of the quadruple aim of accountable care organisations (figure 4) targeting these broader objectives.

Figure 4: Quadruple Aim of accountable care organizations (ACO)



The analysis of routine data is an important tool to create **sustainability through more efficient services and better health**. Reducing duplication of services and avoiding unnecessary hospital admissions through a stronger orientation towards preventive care services and patient self-management frees professional staff from unnecessary work. In the current situation of partly or completely destroyed facilities for hospitalisation and specialised care, increasing the efficiency of existing services and promoting a "healthy community" may also prevent or reduce negative consequences for chronic care patients by making scare resources available for other patients in need or for preventive care service. The analysis of routine data helps to determine the efficiency of services and their appropriateness in achieving population health goals. OptiMedis has developed standard data tools, which permit this type of analysis. These tools will be adapted to the Ukraine context and tested in the local context.

Population Health Management (PHM) requires a public health view rather than an isolated care view on the organisation of community services. **Prevention, health promotion and public health** support the activation of the population and specific patients to engage in their own health, thus becoming the key actors within the health and social service system. The municipal task is to create a conducive environment for its citizens to engage in their health and social needs. Health promotion and prevention are key pillars to reduce health risks and to enable citizens and patients to take informed decisions. The construction of patient pathways for complex patients includes secondary and tertiary prevention activities to reduce the risk of disease aggravation. The currently completely overwhelmed health system, which is now dealing with enormous numbers of injured civilians and combatants, is unable to cover patient pathways for citizens with progressive stages of chronic diseases, including cancer, diabetes and cardiovascular. Thus, a „Healthy Communities" approach and an increase in efficiency of care processes and patient self-care in the management of chronic diseases becomes essential. The high mortality rate due to chronic disease in the Ukrainian population even before the war makes an engagement in more preventive care programs the obvious choice.

We propose project implementation in three steps

Step 1: Assessment

Task: Situation analysis
Duration: 10 months to 1 year
Budget: 800,000 to 1 Mio EUR

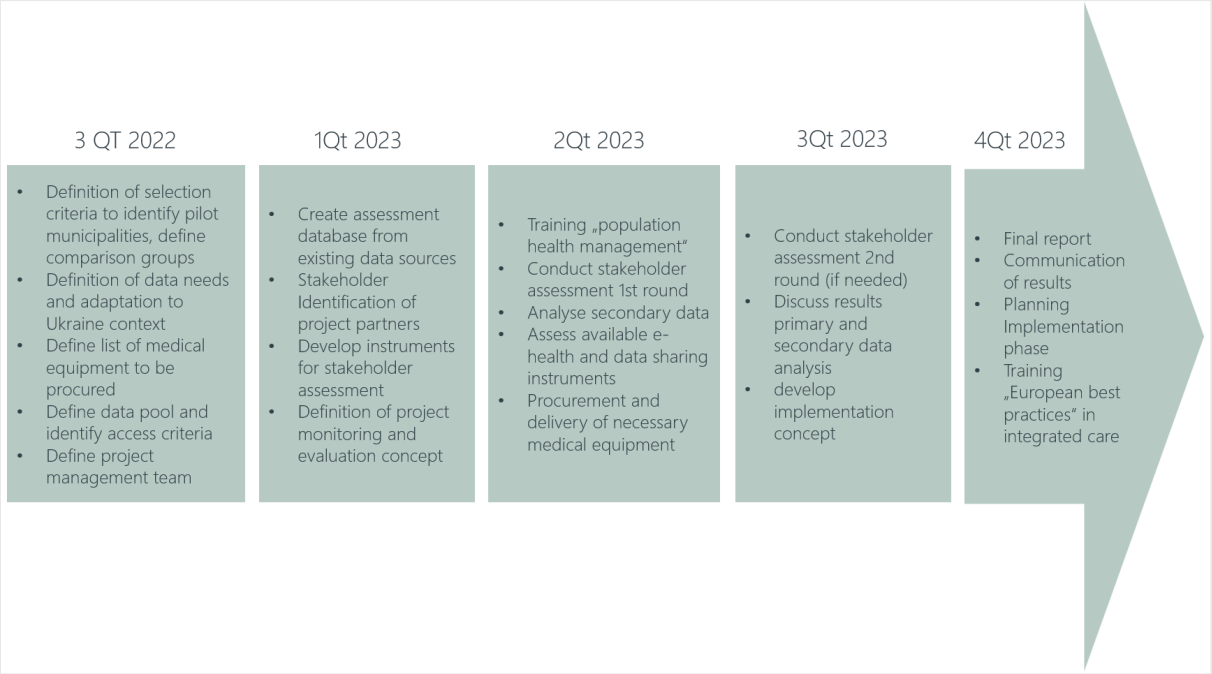
This step includes an initial analysis of primary and secondary data as well as the development of a workplan for step 2 in a participatory manner with local stakeholders. Part of the assessment will be to define a list of essential medical equipment based on the national accreditation scheme and the status of existing equipment. Ideally, the procurement of the equipment should be initiated in this phase to create equal conditions in all participating municipalities.

- assessment phase with primary and secondary data analysis following a population health management approach in up to three municipalities:
    - primary data: stakeholder analysis, focus groups, to determine needs and preferences for further development of patient centred primary care with a public health focus
    - secondary analysis based on the availability of routine data – OptiMedis shares its standard data request form, and Kharkiv expert and Kharkiv expert group collects information available in cooperation with National Health Service of Ukraine
    -
- Co-create interventions and optimize existing procedures of patients' identification, referrals and follow up with local stakeholders – design plan of operations

- update and modernise medical equipment and support uninterrupted access to medicines and basic medical supplies in project municipalities to required standards by national norms and regulations

An implementation timetable is provided in Figure 5

Figure 5: Timetable Assessment Step



Step 2: Implementation

Task: Implementation of local population based integrated care system at municipal level as proposed in phase 1.
Duration: 3- 4 years
Budget: 10 - 15 million EUR

The second, and long-term step is geared towards strengthening the primary care system and creating a resilient community care model following the principles of integrated care and population health management. Rebuilding the primary care system better strongly involves people and patient participation for shaping the health services and a community engagement towards better patient participation and self-management for chronic diseases as described by the six pillars of the OptiMedis model:

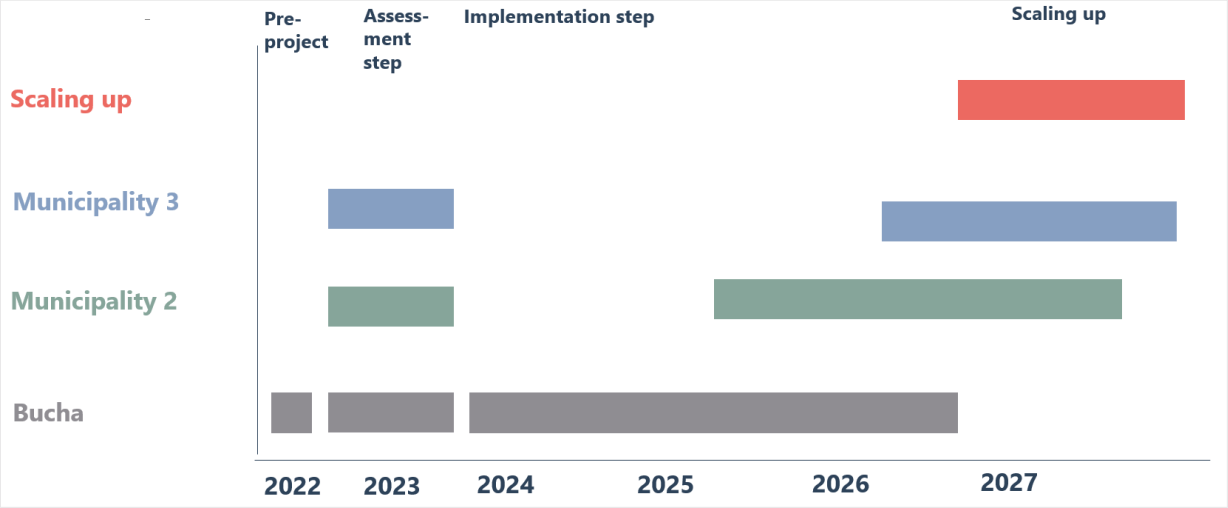
1. Strong Stakeholder engagement
2. Digital Integration across providers
3. patient involvement and empowerment
4. Data driven management
5. Sustainability through increased efficiency
6. Prevention, health promotion and public health approach

Where not already done this step includes the investment in medical equipment for primary health care facilities, the strengthening of participatory decision-making processes in the health and social sectors at municipal levels, the communication of best practices, training, the development of patient pathways and chronic care programmes, as well as the integration of prevention programmes. Existing health facilities will be assessed in terms of the need for repairs and renovations, but also in terms of the appropriateness of the infrastructure to host new services, functions and processes in line with the "Healthy Communities" approach and the appropriate investments will be made.

Broad access to integrated care programmes for the entire population is crucial. Tele-medical approaches to connect GPs to hospitals or case managers to GPs might be appropriate if the use of these technologies is at all possible considering the Russian tactics of destroying Ukrainian energy infrastructure. Re-designing and improving coordination and referral system between primary and specialized care facilities as well as between health and social care providers is needed to facilitate smooth patient pathways and minimize the number of individuals who miss their appointments or who do not have access to necessary health and social services. Creative solutions will have to be identified to satisfy the needs of the population, particularly for the most vulnerable. The planned initiative combines immediate help with the need for a long-term recovery programme based on the Ukrainian primary health care strategy. Figure 7 proposes a timeline for the planned activities.

The implementation process is accompanied by project evaluation and the analysis of existing routine data. Evaluation analysis effectiveness and efficiency of the project and its parts and assesses scalability of the approach. Project Implementation will happen in 2-year intervals as shown in figure 6.

Figure 6: Phased implementation plan



Tentative project goals are:

- Primary care providers in the project area have the necessary infrastructure and equipment according to Ukrainian standard specifications
- A participatory decision-making culture for health issues is developed at community level
- The quality of health care at community level is improved.
- A scalable model for integrated community health care is developed

Assessment phase and the beginning of the implementation phase are characterized by setting priorities based on the assessment results and co-creating the key interventions during the implementation phase. This also includes the definition of appropriate indicators for measuring progress towards and achievement of project goals (such as vaccination coverage, % of patients who treated according to national guidelines etc, for quality of care)

The lines of activities will most likely be determined by the key pillars of the OptiMedis approach, with the focus on improving quality of care, develop a data and evaluation culture, capacity building of health and social service professionals, develop preventive care, health promotion and patient empowerment activities, create chronic care pathways and data sharing instruments to make data follow the patient. Within these pillars, innovative measures will be developed and tested to improve effectiveness and efficiency of services and reduce disease aggravation.

Key measurements towards the development of concrete plan of operations are:

- Discussion and development of a common understanding of the roles of medical staff, community administration, social services, and citizens with particular focus on vulnerable groups and internally displaced individuals in an integrated population-based care system.
- Strengthening the attractiveness of the municipality for the settlement of required health professionals.
- Setting health priorities such as the management of post-traumatic disorders, psychosomatic illnesses, chronic illness, palliative care and a stronger focus on prevention and risk avoidance.
- Support designing of updated/reviewed patient pathways to improve access to care and optimize limited health sector resource use.
- Advocate to improve referral systems between the primary and specialized care facilities within municipalities as well as provide useful instruments and recommendations on interaction with specialized care facilities outside of the community.
- Work with the national-level institutions such as NHSU and MOH Ukraine and communicate findings and project results in order to support policy making by MOH and to influence operational decisions of NHSU, such as contracting of health facilities and developing indicators for performance measurement of health facility contracts.
- Support the development of higher-level strategies of post-war reconstruction and rebuilding of the people-centred primary care systems based on community needs and capacities.

The project communication strategy for this project will include:

- The presentation of project results and effects of project activities on health outcomes using objective indicators that can be measured in the short-and mid-term phase of the project implementation.
- Communication with other stakeholders/donors who are supporting projects in health sector to build on our project and consider investing in a scale-up phase.
- Create online handbook/library of tools/repository with adapted and evaluated instruments for the implementation of "Healthy Communities" for existing partners and newly participating communities to accelerate the scaling up process.

In collaboration with the Kharkiv Expert Group and International Renaissance Foundation, OptiMedis contributes:

- Fund management for any procurement of medical material in Germany where necessary.
- Conduct initial assessment exercise based on primary and secondary data.
- Advising on the implementation of integrated care solutions and management support.
- Organisation and implementation of (virtual) training events (to a small extent also analogue events) in Germany and Ukraine.
- Adaptation of OptiMedis tools, such as patient activation and health programmes, to the Ukrainian context.
- Data analysis, evaluation of the implementation phase and preparation for publications, scientific support.

- Support the development of communication material for different levels (policy dialogue, dialogue with international donor groups, etc.).
- Preparation of a scaling up phase after completion of the pilot project.

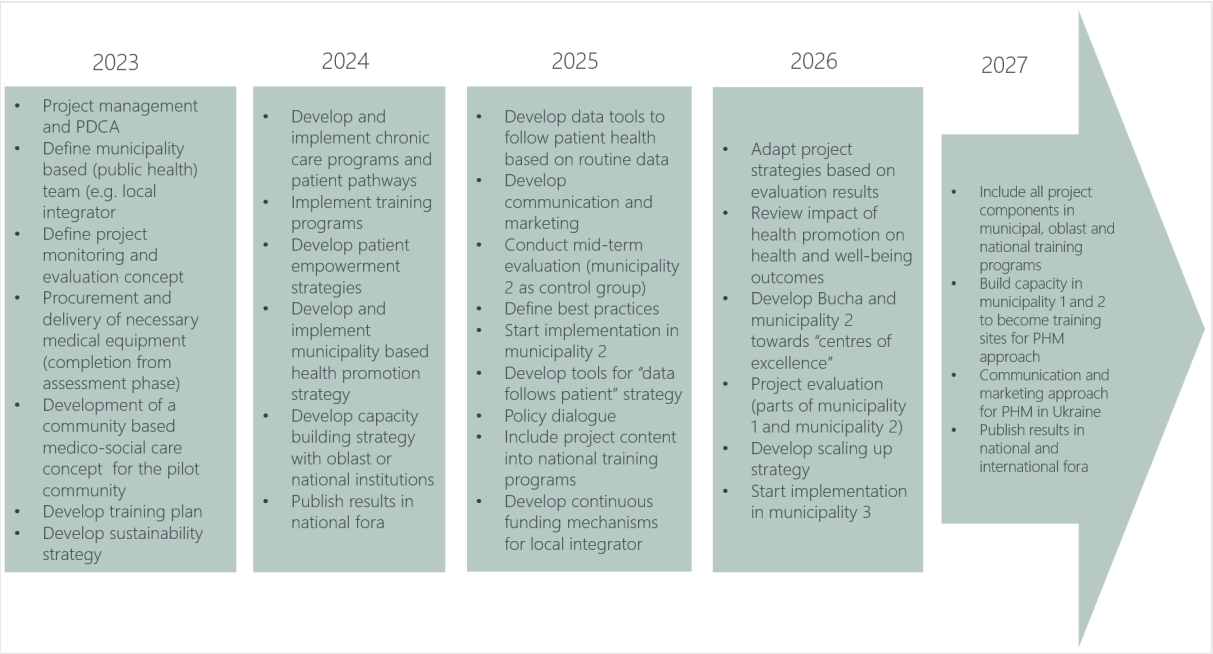
International Renaissance Foundation / Health Solutions for Open Society will contribute the following:

- Support initial assessment in hromadas through collection of primary and secondary data, conduct verification activities when possible and needed
- Analyse existing needs and gaps in medical equipment, supplies and medicines' stocks based on the requirements of the National Health Service of Ukraine and Ministry of Health
- Provide technical and expert support in delivering training events (both virtual and when and where possible in-person) to expose and teach hromadas on the designing health-oriented programs in the communities, working with donors and stakeholders to attract additional funding, etc.
- Support communities in their financial and operational planning to design and implement health-oriented programming
- Jointly with communities develop sound and comprehensive communication programs to support implementation of the health-oriented programming in each specific hromada, tailoring communication strategy to the context, available resources and planned activities
- Ensure adequate monitoring and support for program implementation
- Promote "Healthy Community" framework as the essential part of the national strategy for reconstruction and restoration of Ukraine's health and social care system in the post-war period
- Engage in broad informational and advocacy campaign on advancing "Healthy communities" model as such that optimizes health expenditures, improves quality of life and longevity of people, and stimulates community development and reduces unnecessary hospitalization and burden to the healthcare and social welfare system.

A concrete budget still needs to be developed and would include:

- a feasibility study including a local needs assessment including socio demographic parameters, morbidity patterns and data availability
- funds for investment, procurement, and fund management
- production of training materials and carrying out training events online or in Germany or neighbouring countries to Ukraine
- expert services and M&E
- running cost for local integrated care programme.

Figure 7: Time table implementation phase



Step 3: Scaling up

Budget: 10 to 15 million EUR

The scaling up step strengthens the capacity of local stakeholders and national institutions to disseminate the experience and lessons learned from the project. This includes the collaboration with health departments and training centres, policy dialogue at all important levels, and a communication strategy relate to the dissemination of the project results.

Population based integrated care is based on continuous innovation and developing best practices to improve population health. This is made possible by the production and identification of national and international best practices and the continuous adaptation of quality of services. The production of local best practices can be facilitated by developing a "benchmark system" amongst project participants and the organisation of annual benchmark conferences. Alternatively or additionally, a quality management strategy might be implemented to go with the accreditation system for health facilities to make sure that innovations are identified and applied continuously. The scaling up step supports the development of training programs at all levels, the strengthening of proposed "excellence centres" by building training capacity amongst others, and the policy dialogue to ascertain national anchorage of all essential tools and best practices developed.

The end of project funding poses the question of how the additional functions provided by the project team will be integrated in municipality functions. The same is valid for the incentives for project partners and patients. The sustainability strategy developed at the beginning of step 2 needs to be updated during this phase. Figure 8 proposes a timetable for the scaling up step.

Figure 8: Step 3 - Scaling up

Annex

Annex 1: Request from Bucha City Council

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