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Report No: PAD5427

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT ON A PROPOSED LOAN

IN THE AMOUNT OF EURO 36.2 MILLION
(US$ 40 MILLION EQUIVALENT)

TO THE

REPUBLIC OF MOLDOVA

FOR A

MODERNIZATION AND IMPROVEMENT OF REHABILITATION SERVICES PROJECT

February 9, 2024

Health, Nutrition & Population
Europe And Central Asia

CURRENCY EQUIVALENTS

(Exchange Rate Effective December 31, 2023)

Currency Unit =	EUR
0.90277151 =	US$1
US$ =	SDR 1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Antonella Bassani
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ABBREVIATIONS AND ACRONYMS

AMI	Acute Myocardial Infarction
BACPR	British Association for Cardiovascular Prevention and Rehabilitation
BCR	Benefit-Cost Ratio
BMI	Body Mass Index
CERC	Contingent Emergency Response Component
CPF	Country Partnership Framework
CNAM	Compania Nationala de Asigurari in Medicina
COVID-19	Coronavirus Disease 2019
CSC	Comprehensive Stroke Center
CVD	Cardiovascular Disease
DA	Designated Account
DFIL	Disbursement and Financial Information Letter
DALY	Disability-adjusted Life Year
DRG	Diagnosis-Related Groups
ECA	Europe and Central Asia
EU	European Union
FM	Financial Management
GDP	Gross Domestic Product
GoM	Government of the Republic of Moldova
GRM	Grievance Redress Mechanism
ICT	Information, Communications and Technology
IFR	Interim Financial Reports
IPF	Investment Project Financing
IRR	Internal Rate of Return
M&E	Monitoring and Evaluation
MoH	Ministry of Health
MoF	Ministry of Finance
MSC	Multidisciplinary Stroke Center
NAPH	National Agency for Public Health
NCD	Noncommunicable Disease
NDC	National Determined Contribution
NDS	National Development Strategy
NHS	National Health Strategy
NPV	Net Present Value
OOP	Out-of-pocket
PSC	Primary Stroke Center
PDO	Project Development Objective
PHC	Primary Healthcare
PIU	Project Implementation Unit
POM	Project Operations Manual
PPSD	Project's Procurement Strategy for Development
RFB	Request for Bids
RES-Q	Registry of Stroke Care Quality
SCD	Systematic Country Diagnostic
SCO	Swiss Cooperation Office

SDI	Service Delivery Indicators Survey
SDG	Sustainable Development Goal
SOE	Statement of Expenditure
STEP	Systematic Tracking of Exchanges in Procurement
STEPS	STEPwise Approach to Noncommunicable Disease risk Factor Surveillance
TA	Technical Assistance
UHC	Universal Health Coverage
WHO	World Health Organization

TABLE OF CONTENTS

DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Moldova	Modernization and Improvement of Rehabilitation Services Project		
Operation ID	Financing Instrument	Environmental and Social Risk Classification	
P180306	Investment Project Financing (IPF)	Moderate	

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[✓] Contingent Emergency Response Component (CERC)
[ ] Series of Projects (SOP)	[ ] Fragile State(s)
[ ] Performance-Based Conditions (PBCs)	[ ] Small State(s)
[ ] Financial Intermediaries (FI)	[ ] Fragile within a non-fragile Country
[ ] Project-Based Guarantee	[ ] Conflict
[ ] Deferred Drawdown	[ ] Responding to Natural or Man-made Disaster
[ ] Alternative Procurement Arrangements (APA)	[ ] Hands-on Expanded Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
05-Mar-2024	31-Dec-2029
Bank/IFC Collaboration	
No	

Proposed Development Objective(s)

The PDO is to (i) strengthen noncommunicable disease care by improving prevention and rehabilitation services, with a focus on stroke and heart attacks, at all levels of the health system, and (ii) in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

Components

Component Name	Cost (US$)
Component 1: Integrated care at the hospital level for NCD patients	31,250,000.00
Component 2: Integrated prevention and rehabilitation services at the primary care and population-level	12,250,000.00
Component 3: Pandemic preparedness	5,612,000.00
Component 4: Project management	2,000,000.00
Component 5: Contingent Emergency Response Component	0.00

Organizations

Borrower:	Republic of Moldova
Implementing Agency:	Ministry of Health

PROJECT FINANCING DATA (US$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)?	No
Is this project Private Capital Enabling (PCE)?	No

SUMMARY

Total Operation Cost	**51.21**
Total Financing	**40.10**
of which IBRD/IDA	**40.00**
Financing Gap	**11.11**

DETAILS

World Bank Group Financing	
International Bank for Reconstruction and Development (IBRD)	40.00
Non-World Bank Group Financing	
Counterpart Funding	0.10
Borrower/Recipient	0.10

Expected Disbursements (US$, Millions)

WB Fiscal Year	2024	2025	2026	2027	2028	2029	2030
Annual	1.00	10.47	12.09	12.39	10.04	3.00	2.12
Cumulative	1.00	11.47	23.57	35.96	45.99	48.99	51.11

PRACTICE AREA(S)

Practice Area (Lead)	Contributing Practice Areas
Health, Nutrition & Population	

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

Risk Category	Rating

1. Political and Governance	Substantial
2. Macroeconomic	Substantial
3. Sector Strategies and Policies	Moderate
4. Technical Design of Project or Program	Moderate
5. Institutional Capacity for Implementation and Sustainability	Moderate
6. Fiduciary	Moderate
7. Environment and Social	Moderate
8. Stakeholders	Moderate
9. Other	
10. Overall	Moderate

POLICY COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[ ] Yes [✓] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

ENVIRONMENTAL AND SOCIAL

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Relevant
ESS 10: Stakeholder Engagement and Information Disclosure	Relevant
ESS 2: Labor and Working Conditions	Relevant

ESS 3: Resource Efficiency and Pollution Prevention and Management	Relevant
ESS 4: Community Health and Safety	Relevant
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Not Currently Relevant
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources	Not Currently Relevant
ESS 7: Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
ESS 8: Cultural Heritage	Not Currently Relevant
ESS 9: Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

LEGAL

Legal Covenants

Sections and Description
The Borrower shall carry out the Project in accordance with the Implementation Arrangements set out in Section I, Schedule 2 of the Loan Agreement.

Conditions

Type	Citation	Description	Financing Source
Effectiveness	Article 4.01 (a)	The PIU referred to in Section I.A.1 of Schedule 2 to this Agreement has been established and staffed in a manner acceptable to the Bank	IBRD/IDA
Effectiveness	Article 4.01 (b)	The Project Operations Manual has been prepared and adopted in a manner acceptable to the Bank.	IBRD/IDA

I. STRATEGIC CONTEXT

A. Country Context

1. **Moldova is a small lower-middle-income country, with a per capita gross national income of US$4,676 in 2020 and a ranking of 80 out of 198 countries in the Human Development Index in 2021.**[1] In 2022, 16.2 percent of its 2.57 million population lived below the poverty line.[2] Despite solid economic performance over the past two decades, with a gross domestic product (GDP) per capita growing at an average rate of 5.14 percent per year, Moldova remains among the poorest countries in Europe.[3] From 2015 to 2021, the country went through six governments. This volatility has hampered reforms to support a sustainable and inclusive long-term growth agenda.[4] In addition, the COVID-19 pandemic revealed vulnerabilities in Moldova's economic model. With a decline in GDP of more than seven percent in 2020, the combined economic consequences of COVID-19 and a drought[5] have been severe. The shocks have had a large and heterogenous impact on households, firms, sectors, and geographical areas. Poverty (using the national poverty line)[6] rose from 25.2 percent in 2019 to 26.8 percent in 2020, due to lost earnings and reduced remittances.[7] As a result of the economic rebound in 2021, with GDP growth of 13.9 percent, poverty fell to 24.5 percent.[8]

2. **The Russia's invasion of Ukraine in February 2022 has further amplified the vulnerabilities exposed by the pandemic, leading to energy and refugee crises.** High levels of food and energy inflation have sharpened preexisting concerns. Moldova is acutely reliant on natural gas from Russia, so import disruptions lead to continuous price pressures, eroding the competitiveness of firms and household incomes, especially for the poor. Many more Moldovans are at risk of falling or being pushed deeper into poverty. Rapidly rising inflation is limiting the purchasing power of pensions, social assistance, and wages. In addition, Moldova is currently supporting 116,000 Ukrainian refugees, 90 percent of whom are women and children.[9]

3. **Having gained candidate status to the European Union (EU) in June 2022, the Government of the Republic of Moldova's (GoM) approach towards accession recognizes the importance of human development.** The National Development Strategy "European Moldova 2030" (NDS),[10] has an ambitious, forward-looking reform agenda. It calls for a shift from the current consumption-based growth model toward one based on raising investment, increasing productivity and competitiveness, and promoting a knowledge-based society. The NDS has prioritized sustainable and inclusive economic development, long-term human and social capital, and honest and efficient institutions.

4. **Improving healthcare service delivery goes hand in hand with realizing the NDS, given that health outcomes lag other countries and do not commensurate with the size of the GoM's health expenditures.** Healthcare costs are likely to grow if preventive and low-cost technologies are not expanded, particularly given Moldova's aging population, rising noncommunicable disease (NCD) burden, dilapidated hospital infrastructure, and interest in incorporating new (often

[1] World Bank, World Development Indicators Database, https://databank.worldbank.org/source/world-development-indicators; United Nations Development Programme, Human Development Index, https://hdr.undp.org/data-center/human-development-index#/indicies/HDI.
[2] US$6.85 per day at purchasing power parity. World Bank, Europe and Central Asia Economic Update, Fall 2023: Sluggish Growth, Rising Risks, 2023.
[3] World Bank, World Development Indicators Database.
[4] World Bank, "Moldova 2021 SCD [Systematic Country Diagnostic] Update: Building Resilience and Enhancing Competitiveness," World Bank, Washington, DC, 2021, https://documents1.worldbank.org/curated/en/546181647363686927/pdf/Moldova-Systematic-Country-Diagnostic-Update-Building-Resilience-and-Enhancing-Competitiveness.pdf, Report No. 169485, 15 August 2022.
[5] In 2020, Moldova was hit by one of the most severe droughts over the past two decades, causing a drop in agricultural production by almost 30 percent and with significant spill-over effects throughout Moldova's economy.
[6] In 2019, the national absolute poverty line was 2,095.13 lei (US$119.60) per person per month. National Bureau of Statistics of the Republic of Moldova, 2019.
[7] World Bank, "Moldova 2021 SCD Update," 27.
[8] World Bank, "Moldova 2021 SCD Update," 27.
[9] https://data.unhcr.org/en/situations/ukraine/location/10784
[10] GoM, "The National Development Strategy 'European Moldova 2030' Was Approved by the Government" [in Romanian], September 23, 2022, https://gov.md/ro/content/strategia-nationala-de-dezvoltare-moldova-europeana-2030-fost-aprobata-de-guvern.

expensive) technologies. Out-of-pocket (OOP) expenditures on health are high, disproportionally affecting low-income households. Hospitals need to become more efficient and deliver greater value for money, while primary healthcare (PHC) services need to manage a growing burden of chronic diseases in a cost-effective manner.

B. Sectoral and Institutional Context

Overview of health outcomes and disease burden

5. **Moldova's health outcomes are slightly better than expected for its level of economic development.** On average, life expectancy at birth (74.3 years) and healthy life expectancy (65.1 years) are higher than middle-income countries in Europe and Central Asia (ECA).[11] Since 2010, Moldova's premature mortality rate, defined as deaths occurring before age 70, has declined by 15 percent, outpacing the average rate of decline in ECA over the same period (six percent). Despite this encouraging trend, premature mortality rates in Moldova (456 per 100,000 population in 2019) remain nearly 50 percent higher than in ECA (307 per 100,000 population in 2019).[12]

6. **NCDs are the major burden of morbidity and mortality and constitute the bulk of premature mortality in Moldova.** Compared to middle-income ECA countries, Moldova has one of the highest age-standardized premature mortality rates due to NCDs. NCD mortality is driven largely by cardiovascular diseases (CVDs), which caused 57 percent of all deaths and 37 percent of deaths before age 70 in 2019. Circulatory system diseases, cancers, diabetes, and respiratory diseases are also responsible for approximately four out of 10 primary disabilities – the major or overriding disability condition that characterizes an individual's impairment. The age-standardized mortality rates from ischemic heart disease and stroke have decreased markedly in the last two decades, while deaths from respiratory diseases have plateaued since 2012 and other main causes of death have remained relatively stable. Nevertheless, CVDs remain the main cause of mortality.

7. **High blood pressure (hypertension), unhealthy diet, high body mass index (BMI), and smoking are the leading risk factors for NCD-related death and disability in the country.** The 2021 STEP wise Approach to Noncommunicable Disease risk Factor Surveillance (STEPS) survey identified that 34.4 percent of the surveyed population had hypertension and 50.1 percent of adults were not taking medication to treat it; only 13.4 percent of the population with hypertension had their blood pressure controlled. Moldova is also one of only six countries in the world where tobacco use continues to rise. Adult tobacco use stands at 27.9 percent, with more than 50 percent of men using tobacco. As a result of these risk factors, the premature mortality rate among people aged between 30 and 69 years from CVDs, cancer, diabetes, and chronic respiratory diseases was 24.1 in 2019, well above the 2019 average for the World Health Organization (WHO) European Region, of 16.4.[13]

8. **The 2023 WHO global report on hypertension and the 2022 United Nations and World Bank Comprehensive Gender Assessment examined gender disparities in the health sector.** The Gender Assessment identified that gender inequality primarily impacts men, as reflected in 2019 death rates for the population aged 35 to 59 years-old. Between 2014 and 2019 these the disparity for diseases of the circulatory system increased from (an indexed value of) 2.53 to 3.2 and from 4.87 to 4.93 for heart attacks. The 2023 WHO global report on hypertension reveals a gender disparity in the management of the condition, with women outperforming men at each stage of care. Among hypertensive men, only 54 percent have been diagnosed, compared to 65 percent of women. Treatment is being received by 31 percent of these men, whereas 42 percent of women are receiving treatment. Furthermore, effective control of hypertension is achieved in only seven percent of men versus nine percent of women.

[11] World Bank, World Development Indicators Database.
[12] Global Burden of Disease Collaborative Network, *Global Burden of Disease Study 2019* (Seattle: Institute for Health Metrics and Evaluation, 2021).
[13] European Health Information Gateway, "Republic of Moldova," https://gateway.euro.who.int/en/country-profiles/republic-of-moldova/#Pillar-1.

9. **While public expenditure on health in Moldova (60 percent of total health expenditure) is slightly above the upper-middle-income country average (56 percent), the proportion of total health expenditure paid for by households OOP is high, hindering financial risk protection.** In 2019, Moldovan households contributed nearly 36 percent of total health expenditure through OOP payments (US$170 per capita).[14] OOP payments are largely used to finance drugs, and high OOP payments negatively impact healthcare utilization rates and medication adherence, particularly for the poorest households.

Service delivery challenges

10. **Nevertheless, the unfinished agenda remains significant across financial protection and service delivery.** Catastrophic OOP spending[15] is among the highest in the ECA region and is concentrated among Moldova's poor, and informal payments, particularly in hospitals, contribute to financial hardship. In 2021, 14.5 percent of households experienced catastrophic OOP spending and nearly seven percent were impoverished. Catastrophic expenditure is highest among the population in rural areas, among those with incomplete secondary education, and pensioners.

11. **Weaknesses in service delivery for people with NCDs, particularly CVDs, are apparent in PHC settings, and drive the demand for services in costly, tertiary settings.** In 2019, hypertension accounted for nearly 37 percent of all deaths in Moldova[16] and the Moldovan PHC system has been unable to sufficiently manage hypertension in the population. Detection is improving, but only half of patients adhere to long-term antihypertensive treatment, despite drug availability. As a result, 87 percent of patients with hypertension have uncontrolled blood pressure.

12. **When patients experience an acute cardiovascular event like a stroke or heart attack, many are unable to quickly access appropriate specialized treatment.**[17] The results of a study on access to care showed that 33 percent of patients did not access health care when needed, 20 percent of them cited lack of affordability as the reason.[18] CVD patients tend to delay hospital care. Low awareness among the population of the warning signs and the benefits of early treatment may contribute to this issue, along with perceived or real financial barriers.

13. **Too few stroke patients are treated in facilities with the appropriate monitoring and infrastructure.**[19] In September 2022, nationally, only 31 percent of stroke patients were treated in a stroke unit. At the Institute of Emergency Medicine, 73 percent of stroke patients were treated in a stroke unit, compared with seven percent in Cahul and Edinet District Hospitals.[20] For patients with acute myocardial infarction (AMI or heart attack), mortality rates are high (30–35 percent) and thrombolytic therapy[21] is not routinely administered.[22] Restorative rehabilitation services are provided in four overburdened hospitals, with waiting times of up to three months.

14. **Strengthening primary and secondary prevention in PHC settings can help to alleviate the long-term drivers of catastrophic health events.** From 2020 to 2022, the World Bank assessed service delivery in PHC settings, in collaboration with the Ministry of Health (MoH) through the Service Delivery Indicators Survey (SDI). The assessment examined the

[14] Health systems in action: Republic of Moldova. Health Systems in Action insight series, 2022.
[15] Catastrophic health spending occurs when the amount a household pays out of pocket exceeds a predefined share of its capacity to pay for health care. This may mean the household can no longer afford to meet other basic needs (for example, food, housing, water, electricity and fuel for cooking and heating) or cannot afford to meet basic needs without drawing on savings, selling assets or borrowing. In this instance, catastrophic health spending refers to the percentage of the population with household health expenditures greater than 10% of total household expenditure or income.
[16] Global Burden of Disease Collaborative Network, *Global Burden of Disease Study 2019*.
[17] M. Skarphedinsdottir et al., "Better noncommunicable disease outcomes challenges and opportunities for health systems, n°4: Republic of Moldova Country Assessment," *World Health Organization. Regional Office for Europe 2014.* https://apps.who.int/iris/handle/10665/129636
[18] Skarphedinsdottir et al. *Moldova Country Assessment 2014.*
[19] A. Cieza et al., "Global Estimates of the Need for Rehabilitation Based on the Global Burden of Disease Study 2019: A Systematic Analysis for the Global Burden of Disease Study 2019," *The Lancet* 396, no. 10267 (December 2021): 2006–17, https://doi.org/10.1016/S0140-6736(20)32340-0.
[20] Registry of Stroke Care Quality (RES-Q) database, https://qualityregistry.eu/ (provided by MoH)
[21] H. White and F. Van de Werf, "Thrombolysis for Acute Myocardial Infarction," *Circulation* 97, no. 16 (1998): 1632–46, https://doi.org/10.1161/01.CIR.97.16.1632.
[22] Skarphedinsdottir et al. 2014.

functional quality of NCD services in PHC settings. Only six percent of patients received the full range of relevant services for their condition, pointing to a significant gap in care. There is a need to strengthen secondary prevention, following a catastrophic health event, as demonstrated by the variability in referrals to a smoking cessation program. In September 2022, across 15 hospitals, an average of only 64.7 percent of smokers were appropriately referred.[23]

15. **As a result of Moldova's high NCD burden, current and future demand for rehabilitation services is substantial.** The WHO has defined rehabilitation services as "a set of interventions designed to optimize functioning and reduce disability in individuals with health conditions in interaction with their environment."[24] It helps a patient to perform everyday activities and enables participation in education, work, recreation and meaningful life roles. Rehabilitation can be provided in many places from inpatient or outpatient hospital settings to community settings.

16. **There are four categories of rehabilitation: preventive, restorative, supportive, and palliative.** Preventive rehabilitation occurs shortly after a new diagnosis or the onset of new impairments. The aim is to provide education, advice, and interventions to prevent or slow the onset of impairments and maintain a person's level of ability. Restorative rehabilitation focuses on interventions that improve impairments, such as those to muscle strength, respiratory function, or cognition, to get maximal recovery of function. This is a common form of rehabilitation after surgery, illness, or acute events, such as a major trauma or a stroke, to recover diminished functionality. Supportive or "adaptive" rehabilitation increases a person's self-care ability and mobility by, for example, providing self-help devices or teaching compensatory strategies – alternative ways of doing things – and may include the provision of assistive equipment or environmental modifications. Palliative rehabilitation enables people with life-limiting conditions to lead a high quality of life physically, psychologically, and socially, while respecting their wishes. It often focuses on relieving symptoms to maximize functional independence and support comfort, dignity, and quality of life.

17. **About 43 percent of Moldovans may need rehabilitation services, and the MoH estimates that the unmet need for rehabilitation services is 70 percent**.[25] In 2022, the WHO estimated that 1.6 million Moldovans had at least one condition that would benefit from rehabilitation services. The largest share of the population in need were between 15 and 64 years of age, with relatively equal needs between men and women. Women over 65 years old have a higher burden of conditions (1.6 times higher) that men. Since 2012, demand for rehabilitation services has steadily increased, but the lack of service provision and long waiting times mean patients are often discharged after being stabilized. As a result, approximately 90 percent of these patients do not return to the workforce.

18. **Adult rehabilitation services are challenged by poor infrastructure and the lack of appropriate equipment, defined clinical protocols, and sufficient number and capacity of healthcare professionals.** Despite rehabilitation services being part of the health benefit package funded by the National Health Insurance Fund (Compania Nationala de Asigurari in Medicina, CNAM), years of underinvestment mean Moldova is ill-equipped to respond to the needs of patients living with disabilities. The MoH estimates that the annual unmet demand at the Institute for Neurology, the main tertiary center for rehabilitation services, is 88 percent. Further details on the World Bank's assessments into integrated care and rehabilitation services are in Annex 2.

[23] RES-Q database (accessed September 2022), https://qualityregistry.eu/ (shared by MoH).
[24] WHO, "Rehabilitation," January 30, 2023, bit.ly/3nz6ZF5.
[25] WHO, *The Need for Rehabilitation Services in the WHO European Region* (Copenhagen: WHO Regional Office for Europe, 2022).

C. Relevance to Higher Level Objectives

19. **The Project addresses binding constraints identified in the 2021 Systematic Country Diagnostic (SCD) Update,**[26] **(Report number 169485, March 14, 2022) is aligned with the FY23-27 Country Partnership Framework (CPF)** [27]**(Report number 177939, Board meeting March 14, 2023) and contributes to the vision of shared prosperity and poverty reduction on a livable planet.** The Project contributes to Pillar 5 (Improving resilience, efficiency and equity in service delivery) of the SCD and the CPF's Higher-level Objective 2 on Improved Human Capital. Primary and secondary care intervention for cardiovascular patients will facilitate health sector efficiency (CPF Objective 2.2). The Project also supports two Global Challenge Programs[28] (Enhanced Health Emergency Prevention, Preparedness and Response and Accelerating Digitalization) by improving the health system's ability to manage the conditions that make Moldovans particularly vulnerable to pandemics and facilitating uptake of health technologies to improve service delivery.

20. **The Project is also aligned with the National Health Strategy (NHS) being developed by the GoM, and Goal 3 of the 2030 Agenda of the Sustainable Development Goals (SDG) – ensuring healthy lives and promoting well-being**. The Project supports the NHS's vision for a 'modern and efficient health system.' The selection of Project activities is informed by NHS values of person-centered care, high-quality and accessible care. The Project directly supports SDG indicator 3.4.1 (the reduction of the mortality rate attributed to CVDs, cancer, diabetes, or chronic respiratory disease) and the goal of reducing premature mortality from NCDs. It also supports SDG indicators 3.8.1 (coverage of essential health services) and 3.C.1 (health worker density and distribution).

21. **The Project builds on a foundation of previous operations and analytical programming to support the achievement of Universal Health Coverage (UHC).** Since 2014, the World Bank has financed the Health Transformation Project (P144892, US$30.8 million), and the Emergency COVID-19 Response Project (P173776, US$90.78 million). The Health Transformation Project, which sought to improve population health, increase financial risk protection, reduce inequalities to health care services, enhance user satisfaction, and facilitate improvements in health systems performance and population health, supported the 2007-2021 National Health Policy that was operationalized by the 2008-2017 National Health System Development Strategy. It laid a foundation for improved provision of NCD care and the new Project would advance this further through its focus on prevention and improved management of acute episodes. This new Project leverages the platform provided by the World Bank's collaboration with the Swiss Cooperation Office (SCO), through which the World Bank has led a range of analytical studies, with development partners, on health system reform priorities.

22. **The Project is also aligned with Pillar 4 of the WB's Global Crisis Response Framework, which focuses on strengthening policies and institutions, and investments for rebuilding better.** Recognizing that Moldova is facing multiple crises, the Project will provide a foundation for the long-term recovery of the health sector. Through a focus on health system strengthening, for example in supporting health worker training for NCD management, as well as infrastructure, the Project will strengthen institutional capacity. By supporting emergency response protocols for patients suffering from an acute episode the Project will strengthen operational policies and procedures.

[26] World Bank, "Moldova 2021 SCD Update," March 14, 2022
[27] World Bank. Moldova - Country Partnership Framework for the Period FY23-FY27 (English). Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/099350101102317579/BOSIB0d902e69802c0ba0c04ec91579296a, Report No. 177939, Board meeting March 14, 2023
[28] World Bank, "Ending Poverty on a Livable Planet: Report to Governors on World Bank Evolution," https://www.devcommittee.org/content/dam/sites/devcommittee/doc/documents/2023/Final%20Updated%20Evolution%20Paper%20DC2023-0003.pdf

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

23. The PDO is to (i) strengthen noncommunicable disease care by improving prevention and rehabilitation services, with a focus on stroke and heart attacks, at all levels of the health system, and (ii) in case of an Eligible Crisis or Emergency, respond promptly and effectively to it.

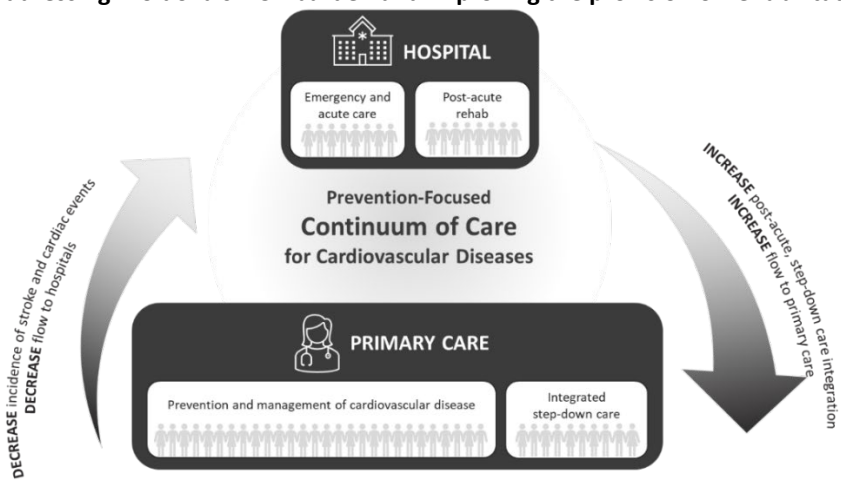
Table 1: PDO Level Indicators

PDO Elements	PDO Indicators
NCD prevention and management in primary care facilities	*Primary care facilities following standardized protocols and guidelines for screening, prevention and management of hypertension and diabetes*
Timely stroke treatment	*Eligible stroke patients who are treated with systemic thrombolysis, within 2 hours, in Project-supported facilities*
Facility-readiness for stroke management	*Stroke patients treated in fully equipped, dedicated stroke units in Project-supported facilities*
Restorative rehabilitation for stroke and cardiac care	*Stroke and cardiac patients in Project-supported facilities who received restorative rehabilitation services*

B. Project Components

24. **The Project seeks to address Moldova's NCD burden and improve the provision of rehabilitation services in four ways (Figure 1).** Firstly, the Project will strengthen emergency care to diagnose and promptly treat patients with acute healthcare needs, such as an AMI or stroke. Prompt treatment is critical to reducing the likelihood of severe and longer-term disability and entails strengthening hospital equipment and infrastructure. Secondly, the Project will strengthen restorative rehabilitation or service provision immediately following an acute episode. Restorative rehabilitation focuses on interventions that improve impairments or cognition to get maximal recovery of function. It can be delivered in hospital settings or in dedicated facilities. These first two areas will be the focus of Component 1. Thirdly, the Project will strengthen PHC services to provide integrated step-down care. This may include supportive rehabilitation, which increases a person's self-care ability and mobility. It also includes preventive rehabilitation to support patients shortly after a new diagnosis through the provision of education and interventions to prevent or slow the onset of further impairments. Fourthly, the Project will strengthen primary and secondary prevention in PHC settings to manage NCDs and reduce the likelihood of initial and recurrent acute episodes. The third and fourth types of services, the focus of Component 2, can be delivered in community settings. Their provision in these settings is important for positioning the health system on a path away from hospital-centric care that is expensive and unsustainable.

Figure 1. Addressing Moldova's NCD burden and improving the provision of rehabilitation services



Source: World Bank.

25. **Component 1: Integrated care at the hospital level for NCD patients (US$31.25 million).** This component will focus on patients facing catastrophic health events, primarily strokes and heart attacks. It will: (1) strengthen emergency response capabilities following catastrophic health events, with a focus on strokes and AMI; and (2) develop and upgrade health facilities and equipment. It will support improvements in the quality, efficiency, and accessibility of rehabilitation services, with a focus on patients following an acute episode requiring intensive rehabilitation services. The component will finance technical assessments to determine the level and type of building work required,[29] equipment, infrastructure improvements, and transportation.[30] The component will initially focus on ten facilities, which were identified as priority facilities by the MoH in October 2023, and for which preliminary assessments have been completed; additional planning and analysis will be required to confirm the actual scope of support.[31] Thereafter, up to twenty-three additional facilities can be included based on the initial survey of the needs of such facilities.[32] The renovations including modifications of rooms and facilities, such as the introduction of railings and non-slip flooring, are to provide appropriate facilities and the conducive environment to support patients, including those with disabilities, in need of restorative rehabilitation. This component will also finance equipment and service improvements for selected related service lines,[33] where doing so would constitute a cost-effective investment alongside stroke and cardiac care rehabilitation improvements.

26. **Component 2: Integrated prevention and rehabilitation services at the primary care and population-level (Total financing: US$ 12.25 million; financing gap: US$5 million).** This component will support services to prevent NCDs through primary care and population-level interventions. The purpose of these interventions at the individual level is to limit the likelihood of an initial acute episode, and at the system level, to limit the use of costly tertiary services. It will focus on patients at risk of strokes and heart attacks and, recognizing the presence of comorbidities, will also include programming for other NCDs. The component will also strengthen preventive and supportive rehabilitation services to support patients following a stroke or heart attack. The purpose of this investment is to address a gap in service provision and better preserve the human capital of patients who have experienced an acute episode. In addition, preventive and supportive rehabilitation are two areas where integration within and across sectors stands to improve the service quality. Activities

[29] Additional facility assessments will be conducted by the WHO, as part of their rehabilitation services work program of support.
[30] This includes the provision of transportation between facilities, which would be incorporated into financing mechanisms for rehabilitation services following the Project.
[31] The following 10 institutions will be prioritized at the initial stage of the Project: Clinical Hospital of the MoH; Republican Children's Rehabilitation Center; Balti Clinical Hospital; as well as Edineţ, Şoldăneşti, Teleneşti, Hînceşti, Leova, Căuşeni, and Călăraşi District Hospitals.
[32] The following 23 District Hospitals are identified in addition to 10 priority institutions: Anenii Noi, Briceni, Cahul, Cantemir, Cimişlia, Comrat, Criuleni, Donduseni, Drochia, Floreşti, Făleşti, Glodeni, Ialoveni, Nisporeni, Ocniţa, Orhei, Rezina, Rîşcani, Sîngerei, Soroca, Ştefan Vodă, Străşeni, Ungheni.
[33] These service lines could include pediatric trauma, physiotherapy, neurology, cardiology, speech therapy, nutrition, oncology services for patients with NCDs, psychiatry, and geriatrics.

that are planned within the financing gap will support scale-up of measures to increase the number of beneficiary facilities, capacity building for staff, scope of communication campaign, and individual patients, who will benefit from improved preventive, curative, and rehabilitation care.

27. **Subcomponent 2.1. Primary care and population-level interventions for NCD prevention and management (US$8.27 million).** This subcomponent will finance NCD prevention and disease management programs for Moldovans and refugee populations, including screening and treatment; training for healthcare workers to better manage chronic disease conditions and to detect the early signs of strokes and cardiac episodes; public awareness campaigns to address the major risk factors for stroke and heart attacks, including hypertension, salt consumption, physical inactivity and diet; and scale-up existing telemedicine and digital health programs to improve access to counselling to address risk factors for vulnerable populations. It will also finance the development of materials, guidance and protocols to support healthcare workers in supporting NCD prevention and management for refugee populations.

28. **Subcomponent 2.2. Preventive and supportive rehabilitation services (US$3.98 million).** This subcomponent will finance the development of materials and training to support utilization of protocols for integration of multidisciplinary care for cardiac and stroke patients; strengthening of digital infrastructure between facilities to support the integration of rehabilitation services; discharge planning and protocols from secondary to primary care; rehabilitation support materials; and the development of home-based care models to minimize unnecessary and prolonged hospital-based treatment. Furthermore, it will support the development of financing mechanisms to improve service delivery and the integration of care for rehabilitation services across and within the health and social care sectors. It will also support enhancements to primary care facilities to improve their accessibility, including the provision of ramps, rails, and other modifications for patients with disabilities.

29. **Component 3: Pandemic preparedness (Total financing: US$5.612 million; financing gap: US$5.612 million).** This component finances activities relating to the refurbishment of the National Agency for Public Health (NAPH) infrastructure and building additional storage facilities, as well as refurbishing the public health laboratory network infrastructure and endowing it with the necessary equipment to ensure early warning and surveillance functions. These interventions will result in an improvement of national public health surveillance, while aligning with national and international standards. The component finances equipment and infrastructure improvements in selected regional facilities, as well as technical assistance (TA) activities including training and the development of preparedness protocols and guidance. Moldova was awarded a grant from the Pandemic Fund, a Financial Intermediary Fund, to support this work and finances are expected to be on hand to fill the financing gap by early 2024.

30. **Component 4: Project management (Total financing: US$2 million; financing gap: US$0.5 million).** This component will support for project management, coordination, and monitoring and evaluation (M&E) activities, including third-party monitoring. It will finance the Project Implementation Unit (PIU), consulting services, office equipment, training, audits, filing systems, and operating costs. Activities that are planned within the financing gap will support scale up of PIU capacity to provide more hands-on support on project implementation, and to advance M&E measures, in particular to capture beneficiaries that will be covered with additional measures envisioned in Component 2 after the financing gap is closed.

31. **Component 5: Contingent Emergency Response (CERC) (US$0).** The objective of this component is to improve Moldova's capacity to respond to natural and man-made disasters. Following an eligible crisis or emergency, the GoM may request the World Bank to reallocate Project funds to support emergency response and reconstruction. This component would draw from the uncommitted grant resources under the Project from other Project components to cover emergency response. An emergency eligible for financing is an event that has caused or is likely imminently to cause a

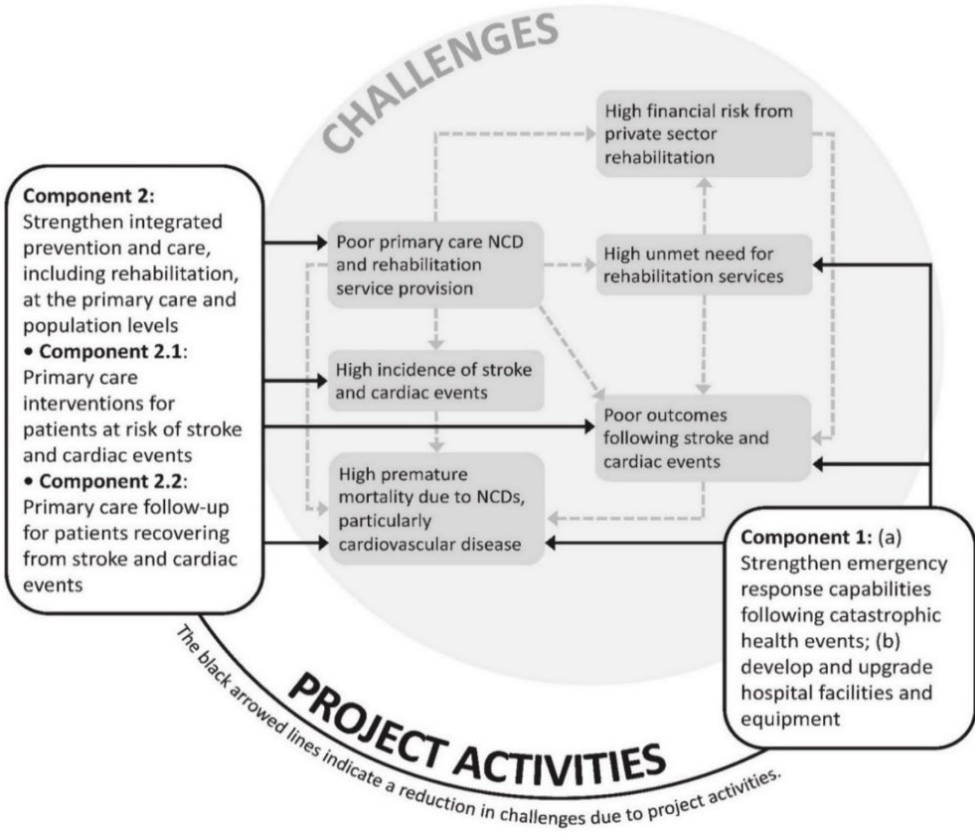
major adverse economic and/or social impact on the Recipient, associated with a disaster. The Project Operations Manual (POM) will include details on the provisions for activating and implementing the CERC.

C. Project Beneficiaries

32. **The Project's direct beneficiaries include present and future patients from disadvantaged backgrounds who will benefit from improved health care facilities and services.** The Project is expected to reach up to 90,000 patients, who will require rehabilitation. Up to one million adults aged 30–79 years with hypertension will potentially benefit from improved detection, management and treatment to prevent acute cardiovascular events and their complications. Patients with disabilities are also included and will benefit from the adaptation of facilities and more inclusive infrastructure to better enable patients with rehabilitation needs and disabilities to access healthcare and receive higher quality care when in facilities. Because of the life expectancy gap between men and women, and the increased needs for rehabilitation services in the age group of people over 60 years old, the majority of Project beneficiaries will be women. The Project will also benefit health care workers and managers of health care facilities by building their professional capacity through training and implementation of clinical protocols and guidelines. The medical personnel in Moldova, similar to other countries, are predominantly females. Capacity building activities envisaged in the project will help female and male staff improve job satisfaction and career development opportunities. In total, the Project is expected to reach up to 6,000 healthcare workers and healthcare managers. The Project will also improve the capacity of the MoH to implement, monitor, and steer reforms.

D. Results Chain (see Annex 6)

Figure 2. Theory of change, indicating the avenues through which the Project seeks to mitigate identified challenges



Source: World Bank.

E. Rationale for Bank Involvement and Role of Partners

33. **Having supported PHC and health sector reforms, the World Bank brings experience from within Moldova and can draw from extensive regional knowledge and operational experience.** The World Bank has been a key development partner in the health sector through loans and TA, such as the Moldova Health Transformation Project (P144892), the Moldova Primary Health Care Project (P096802), the ongoing Moldova Emergency COVID-19 Response Project (P175816) and the Moldova Pandemic Emergency Financing for COVID-19 (P174761). Through these projects, as well as a series of technical engagements and experience from other health sector reforms, the World Bank brings experience in developing acute and restorative care to better manage NCDs. This includes developing emergency response systems and training health care workers, so that they are better placed to identify critical signs and limit the negative impacts of catastrophic health events. It also includes developing PHC systems to strengthen primary and secondary prevention.

34. **The GoM has also requested support from the World Bank due to its financing capacity, TA, and engagement with other development partners.** Additionally, since 2020, with the support from SCO, the World Bank has been implementing an extensive TA program, Towards Universal Health Coverage in Moldova (P171130), which has served as a platform for channeling donor funding and coordinating sectoral activities. Through this program, the World Bank has supported several priority areas from the NDS, including building knowledge and approaches to address NCD risk factors; increasing the medical knowledge of beneficiaries of services and patients; ensurign UHC; strengthening PHC and multidisciplinary service provision, with a focus on prevention; and reducing preventable mortality through screening and developing functional quality management.

F. Lessons Learned and Reflected in the Project Design

35. **The Project builds on the Health Transformation Project (P144892), which sought to contribute to reducing key risks for NCDs and improve the efficiency of health services, and successfully drew on broad stakeholder engagement during COVID-19.** The previous Project made important progress in supporting new tobacco control legislation and a reduction in the number of excessive acute care beds and patient discharge, supported hospital sector reforms, and simulated the approval of the revised NHS. In continuing to support the GoM in addressing chronic medical conditions and the COVID-19 emergency, the Project will draw on important enablers from the Health Transformation Project (P144892), which benefited from broad communication strategies that sought to raise awareness, knowledge, and understanding about the risk and potential impact of chronic and respiratory diseases. This included broad multimedia campaigns incorporating video, audio, and printed materials. Therefore, the Project design incorporates a focus on engaging with multiple subpopulations such as patient groups, healthcare workers, school children, and adults, to highlight the importance of preventive action that can address NCDs.

36. **A lesson from Moldova's pandemic experience was the importance of focusing on ensuring long-term health system development to simultaneously protect the most vulnerable and strengthen the health system to address the epidemiological burden.** In 2020, the United Nations assessment of Moldova's pandemic experience[34] noted the importance of ensuring better incorporating of vulnerable populations into social systems, improving their resilience to shocks, and addressing the structural drivers of inequality and exclusion. In addressing the dominant epidemiological drivers within the country, targeting populations with an increased vulnerability to pandemics, and building health system capacity to support aging populations, the Project acts on the lessons from the pandemic.

[34] United Nations Moldova, "COVID-19 Socio-economic Response and Recovery Plan," September 2020, https://moldova.un.org/sites/default/files/2020-10/Moldova%20Covid-19_FINAL_0.pdf.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

37. The MoH is the implementing agency for the Project. The PIU established by the MoH, which currently supports Moldova Emergency COVID-19 Response Project (P175816) will be strengthened and will be responsible for managing Project implementation, including procurement of medical supplies and equipment and facility refurbishment for activities under the Project. The MoH will recruit additional staff to the PIU to cover key functional roles: a dedicated Project Coordinator, an additional Procurement Specialist, M&E Specialist, and extend the contracts of the existing Financial Manager, Procurement Specialist, Environmental and Social Specialists, and Civil Engineer. The PIU will prepare project progress reports (technical, financial and procurement) and an annual work plan with inputs from the MoH. All reporting and oversight relationships will be summarized in the POM. Financial management (FM) will be carried out by a full-time FM specialist. Procurement will be implemented by a Procurement Specialist with experience in international procurement and a track record of ensuring steady implementation on multiple projects financed by international financial institutions. Compliance with World Bank environmental and social policies will be the responsibility of the MoH, with support from one social development specialist and one environmental specialist in the PIU. All reporting and oversight relationships will be summarized in the POM. Further details can be found in Annex 1.

B. Results Monitoring and Evaluation Arrangements

38. **The PIU will lead on M&E processes, ensuring that Project activities, outcomes and results are facilitated and tracked.** Through the PIU, the MoH will be responsible for: (1) collecting and consolidating all data-related Project indicators; (2) evaluating results; (3) providing relevant performance information to the World Bank, relevant government agencies and other stakeholders; and (4) providing information on implementation progress and results to the World Bank prior to each semi-annual implementation mission. To support data collection, provider institutions involved in the Project will appoint a focal point to ensure timely provision of Project implementation updates and monitoring data. In the first year of the Project, the MoH will also be required to define the package of services for relevant indicators, which are acceptable to the World Bank. For the development of a set of standardized protocols and guidelines for the treatment of hypertension and diabetes in primary care settings, the selection of activities should draw on international clinical practice and the results of the SDIs, which assessed a range of activities, including testing and informing patients about the significance of results, documenting medical histories and providing condition-specific guidance.

39. **Healthcare facility data will be collected through existing surveys, which are collected by the MoH, and newly commissioned surveys administered by the PIU.** Since 2017, the MoH has been a member of RES-Q, a pan-European, collaborative effort on the part of stroke treatment centers, clinicians and researchers to improve the quality of stroke care, and data is collected on a monthly basis. Through this initiative, the MoH collects data that is relevant to stroke, cardiac, and broader NCD outcomes. Assessed performance measures cover coordination of care; diagnosis of conditions; preservation of neural tissue – for example, thrombolytic therapy and door-to-needle time; prevention of complications; and initiation of secondary prevention, including smoking cessation and uptake of medication. In addition, data will also be gathered from the integrated reports of the NAPH and the National Stroke Registry.

40. **The MoH and CNAM will validate and provide administrative and qualitative data for M&E to the World Bank and other stakeholders in a timely manner.** The PIU will also gather and analyze timely and verified qualitative data on implementation progress of Components 1 and 2, including, but not limited to, information to assess achievement of the PDO-level and intermediate results indicators. The PIU will also be responsible for coordinating: the results of third-party surveys aimed at assessing patient and beneficiary satisfaction with Project activities; facility reports on infrastructure,

equipment and staffing, which can be substantiated with photographic evidence, as well as details on on-site visits; facility surveys, following the model of the SDI for NCD prevention and management in primary care settings. To manage costs, it is not expected that a full SDI will be conducted on an annual basis but that relevant segments of the survey will be utilized to assess service provision and Project performance.

C. Sustainability

41. **The technical and financial sustainability of Project investments will be achieved through a focus on preventive care and by supporting the design and implementation of financing mechanisms.** The overall focus on strengthening prevention and timely care will facilitate the sustainability of the Project as the interventions will reduce total health costs to society by preventing disability and averting complications that require costly, specialist care in tertiary facilities. The increased focus on preventive care will, over time, lower costs of care and make services more affordable to patients and to the government. Additionally, the Project draws on and strengthens the MoH and CNAM's roles and capabilities and stewards of the health system. By supporting CNAM to improve the definition of rehabilitation services and payment incentives for integrated care and stronger primary care, the Project will provide a foundation for structural reforms. To ensure financial sustainability, the Project will only finance transitional recurrent costs that will form part of a plan for GoM-financing following the Project, for example, through CNAM financing maintenance of equipment and including this type of expenditure in the redefined service packages. In terms of technical capacity for implementation, the MoH and CNAM have demonstrated their ability to implement complex projects, including provider payment reforms.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis (if applicable)

Technical analysis

42. **NCD care will be strengthened by improving the availability and quality of rehabilitation services, building national capacity for prevention in primary and secondary care settings.** Policy changes will establish a foundation for required structural reforms. Component 1 will provide much-needed upgrades to physical infrastructure to better position the hospital system to treat and respond to catastrophic health events. Component 2 will strengthen primary care and prevention to address the long-term drivers of strokes, heart attacks, and emergency care needs arising from NCDs, recognizing that doing so is essential to developing an efficient health system. This will, in turn, contribute to sustaining the investments under the Project and to upgrading post-acute treatment and restorative rehabilitation services beyond the selected facilities and across the regional network being strengthened by the GoM.

43. **The Project is consistent with international good practice in its focus on upgrading acute care to better enable timely treatment of strokes and heart attacks, thereby limiting long-term disability.** In terms of timely care, a recent review of 31 stroke care trials identified that the presence and use of a well-functioning stroke care unit reduced the odds of death and dependency at one year by 14 and 18 percent, respectively. As a result, investment in stroke care constitutes a cost-effective and technically-sound investment because it reduces demand for health services. In this context, stroke units are defined by physical infrastructure, trained staff, specialist environmental and equipment considerations, and other features, such as the use of care pathways and protocols. In addition, multidisciplinary care models for stroke and heart attack patients have been found to improve outcomes and the transition to effective community care provision. A Cochrane review of 28 trials involving 5,855 participants found that patients who receive multidisciplinary, organized stroke care were more likely to survive their stroke, return home, and become independent in looking after themselves.[35]

[35] Stroke Unit Trialists' Collaboration, "Organised Inpatient (Stroke Unit) Care for Stroke," *Cochrane Database of Systematic Reviews* 2013, no. 9 (2013): CD000197, DOI: 10.1002/14651858.CD000197.pub3.

Likewise, for heart attack patients, reductions in all-cause hospitalizations and medical costs, as well as improved survival rates, have been observed when a multidisciplinary team is engaged in patient care.[36]

44. **In focusing on multidisciplinary care and prevention, the Project follows sustainable and technically-sound principles for healthcare management.** In the case of AMIs, the importance of strengthening integrated care has been shown to have a positive impact. For example, in Poland, care coordination initiatives were associated with a 30 percent reduction in the one-year mortality rate following an AMI. While the GoM's overall plan for improving stroke and cardiac care is ambitious, the Project's interventions have been carefully selected to facilitate success, enable the quick learning of lessons and course corrections, and the longer-term development of a network of care that can offer improved equity of access. The implementation arrangements and financing modalities have been used successfully in in previous World Bank-financed projects in the health and education sectors, with satisfactory performance to date.

Economic analysis

45. **Investing in rehabilitation services can increase healthy life expectancy and human capital in the context of aging populations with a high prevalence of NCDs, and the Project's interventions stand to improve Moldova's adult survival rate and human capital.** Rehabilitation is an essential part of UHC along with promotion of good health, prevention of diseases, treatment, and palliative care. The activities being supported by the Project have been recognized as ones that provide economic benefits by lowering medical costs and improving the health of older adults after hospitalization.[37] Strengthening integrated care for patients with NCDs through the provision of: (1) primary care interventions for patient at risk of stroke and heart attacks; and (2) primary care follow-up for patients recovering from stroke and heart attacks. These stand to bring positive returns arising from the significant reduction in premature mortality.[38] Improving access to primary care services for vulnerable communities can also generate efficiencies by reducing the number of costly and unnecessary hospital admissions.[39] Investing in secondary prevention through providing follow-up services for patients recovering from stroke and heart attacks is also expected to provide significant gains in the form of reduced disability and mortality.[40]

46. **An economic analysis of the Project's activities identified an internal rate of return (IRR) of 261 percent and a benefit-cost ratio (BCR) of 8.18.** The costs and benefits of the Project have been estimated for the 2023–34 period. The main direct benefit derives from the economic value of averted disability-adjusted life years (DALYs) and the cost savings generated by reduced risk factors for NCDs. The most conservative scenario, which considers the least cost of DALYs averted (1 DALY = GDP per capita) and a higher discount rate (five percent) results in a Net Present Value (NPV) of US$249 million, a 261 percent IRR, and a BCR of 8.18. Increasing the value of a DALY from one to three times the GDP per capita and applying a discount rate of three percent raises the NPV to US$906.3 million and the BCR to 25.74. In contrast, the IRR was not very sensitive to the discount rate for DALYs averted. Further details are in Annex 3.

B. Fiduciary

(i) Financial Management

47. **The MoH will be responsible for the Project's FM with the support from the PIU, which will maintain a satisfactory project accounting system, capable of tracking all project resources and expenditures and generating**

[36] E. D. Peterson et al., "Implementing Critical Pathways and a Multidisciplinary Team Approach to Cardiovascular Disease Management," *American Journal of Cardiology* 102, no. 5, supplement (2008): 47G–56G, https://doi.org/10.1016/j.amjcard.2008.06.011.
[37] Yu-Chun Wang, et al., "Post-Acute Care as a Key Component in a Healthcare System for Older Adults," *Annals of Geriatric Medicine and Research* 23, no. 2 (2019): 54–62, https://doi.org/10.4235/agmr.19.0009.
[38] Cherian Varghese et al., "Better Health and Wellbeing for Billion More People: Integrating Non-communicable Diseases in Primary Care," *BMJ* 364 (2019): l327, https://doi.org/10.1136/bmj.l327.
[39] Varghese et al., "Better Health and Wellbeing for Billion More People."
[40] Rune A. Pedersen, Halfdan Petursson, and Irene Hetlevik, "Stroke Follow-up in Primary Care: A Prospective Cohort Study on Guideline Adherence," *BMC Family Practice* 19 (2018): 179, https://doi.org/10.1186/s12875-018-0872-9.

Project financial reports. The existing FM arrangements of the MoH and its PIU have been assessed to determine if FM arrangements (budgeting, accounting, reporting, internal control, staffing, funds flow and audit) are satisfactory. The MoH has a strong track record and FM performance in managing the World Bank-financed projects over the last 15 years. While the current PIU is adequately staffed, additional FM staff might be needed and this will be assessed once the Project speeds up the pace of implementation. The financial reports for the previous and current projects have been always satisfactory. The audits have carried unmodified opinions. The assessment concluded that the existing FM arrangements are suitable to implement the Project and met the requirements of the World Bank Policy and Directive on IPF. Further details on FM arrangements are in Annex 2.

48. **The major FM risk associated with the Project is the insufficient or untimely budgetary appropriation and allocation**. To mitigate the risk, MoH, with support of the PIU, will need to ensure that realistic project budgets and forecasts are included in the Medium-Term Budgetary Framework and Annual State Budget laws and proactively coordinate with the Ministry of Finance (MoF) on any required revisions. The Project's residual FM risk is *Moderate*.

49. **The Project will rely on elements of Moldova's public FM system**. The elements include: (a) planning and budgeting - project planning will be done in accordance with the budgetary rules and budget preparation procedures established by MoF for all budgetary units, and the Project will be included in the Annual State Budget laws; (b) flow of funds - funds will flow through a single treasury account; and (c) execution of the Project budget - Project related payments will be executed by the State Treasury by applying additional controls over spending limits. The results of the 2021 Public Expenditure and Financial Accountability Assessment of the Moldova's Public FM systems show that state budget planning, budget execution, controls and reporting are strong.

50. **The MoH will prepare quarterly financial reports in accordance with the International Public Sector Accounting Standards "Financial Reporting Under the Cash Basis of Accounting" issued by the International Public Sector Accounting Standards Board of the International Federation of Accountants.** The reports will follow an agreed format and submitted to the World Bank within forty-five days of the end of each calendar quarter.

51. **The Project's annual financial audit will be conducted by an independent private audit firm acceptable to the WB, on Terms of References agreed with the World Bank and procured by MoH**. Annual audited Project financial statements will be submitted to the World Bank within six months of the end of each calendar year and at Project closing. Following the formal acceptance of these reports, the MoH will make them publicly available.

52. **The MoH, with support from the PIU, will oversee planning and managing Project disbursements, including preparation and submission of withdrawal applications**. The MoH and PIU's designated staff will have access to the World Bank's Client Connection platform. The Project will use standard disbursement methods: advance, reimbursement, direct payment, and special commitment. Project funds will be deposited in a Designated Account (DA) to be opened by the MoH specifically for the Project in the National Bank of Moldova. Eligible Project expenditures will be documented and reported to the World Bank using Statements of Expenditures (SOEs). More details on the Project's disbursement arrangements are provided in the Disbursement and Financial Information Letter (DFIL).

(ii) Procurement

53. **The procurement arrangements for the Project will be based upon the well-established and functional setup of the ongoing Emergency COVID-19 Response Project (P175816).** To this end, the PIU with the MoH, an experienced PIU, will lead the procurement function for the Project, which will involve coordinating the preparation of technical specifications, terms of references, procurement documents, and the organization of procurement processes. The PIU currently employs a full-time Procurement Specialist, who also covers Project coordination, with experience in applying the Procurement Guidelines, Procurement Regulations, using the Systematic Tracking of Exchanges in Procurement (STEP)

and applying fast-track procurement procedures which are used under the ongoing Emergency COVID-19 Response Project (P175816). Given the increasing workload, the PIU might need to strengthen its procurement capacities and consider hiring an additional procurement specialist. Procurement for the Project will be conducted in accordance with the World Bank Procurement Regulations for Investment Project Financing Borrowers: "Procurement in Investment Project Financing of Goods, Works, Non-Consulting and Consulting Services," dated September 2023 (hereinafter referred to as the "Procurement Regulations") and the most up-to-date Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits.

54. **The Project Procurement Strategy for Development has been prepared by the MoH.** Overall, the proposed PPSD provides sufficient justification for the selection methods outlined in the Procurement Plan. The strategy was reviewed by the World Bank. Annex 1 contains a summary of the PPSD and additional information on the procurement arrangements.

55. **An assessment of the capacities of the MoH to carry out procurement has been conducted by the World Bank.** The assessment identified the following procurement process issues and implementation risks: (i) delays in the development of terms of reference and technical specifications; (ii) potential delivery delays of goods or materials due to the current security situation in the region; (iii) possible increases in the cost of contract performance; and (iv) potential delays in contract implementation.

56. **To address the identified risks, several measures will need to be put in place.** These include**:** (i) MoH/PIU will attract technical expertise for specialized technical areas; (ii) PIU will closely monitor contract implementation by establishing proper contract administration mechanisms, such as regular inspections and meetings, and will amend contracts if delivery is delayed due to the current security situation in the region; (iii) price adjustment formulas will be included in contracts where justified, even if these are shorter than 18 months; and (iv) the procurement capacity within the current PIU will be enhanced by hiring additional procurement specialists. As a result, procurement risk is assessed as *Moderate,* while the residual risk will be *Low* after the mitigation measures are implemented after effectiveness.

57. **The World Bank will exercise its project procurement oversight through a risk-based approach comprising prior, post, and independent procurement reviews as appropriate.** Post reviews will be conducted to determine contract compliance with legal requirements and the POM. The Project will use STEP, an online tool for procurement planning and tracking to prepare, clear and update the Project's Procurement Plan. Project counterparts have developed a Procurement Plan for the entire scope of the Project.

C. Legal Operational Policies

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Area OP 7.60	No

D. Environmental and Social

58. Environmental risks and impacts are mostly associated with project-related civil works and operation of healthcare facilities. These risks are site-specific and temporary and can be mitigated by existing construction best practices. Social risks involve potential for exclusion in access to services for members of vulnerable groups, especially the disabled and

isolated rural poor, and those without awareness or insurance. Principles of universal access will inform physical design, safety and emergency protocols, and access to health services to facilitate improvements in inclusion of patients with different needs. There is some risk that the most vulnerable patients may suffer neglect or abuse in institutionalized medical settings during the provision of healthcare services, although incidents are likely to be isolated and are preventable through training, codes of conduct, labor management procedures, stakeholder engagement and grievance mechanisms. An Environmental and Social Management Framework, including labor management procedures, Stakeholder Engagement Plan, and an Environmental and Social Commitment Plan have been prepared to address these environmental and social risks.[41]

V. GRIEVANCE REDRESS SERVICES

59. ***Grievance Redress.*** Communities and individuals who believe that they are adversely affected by a project **supported** by the World Bank may submit complaints to existing project-level grievance mechanisms or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted to the AM at any time after concerns have been brought directly to the attention of Bank Management and after Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit http://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, visit https://accountability.worldbank.org.

VI. KEY RISKS

60. **The Project's overall residual risk, after mitigation, is Moderate**. Macroeconomic and Political and Governance risks are Substantial. The pandemic, and the recent energy crisis, and the refugee crises exposed the vulnerabilities of the Moldovan growth model to shocks. The influx of refugees to Moldova has resulted in additional fiscal costs, squeezing resources for long-term development priorities including for human capital development. The health losses arising from the pandemic were deep and significant, and the backlog of foregone care poses a specific vulnerability for Moldova, given the high burden of NCDs. Pressures also stem from the capacity of the system to address the backlog, maintain health worker morale after many difficult years, and support patients with increasing comorbidities and risks of impoverishments. The large wave of refugees could create a challenging socioeconomic environment in the medium term, especially if many migrants remain and do not find employment.

61. **The Project aims to address these risks by strengthening the health system at all levels, including PHC, which is the first point of contact for patients seeking care.** The Project will support Moldova's ongoing reforms to the PHC system, which seek to expand coverage of primary care services offered without payment at the point of care for all, including the uninsured. The financing from this Project will also help mitigate the potential shortfall in the financing of the health sector and strengthen capacity at the MoH.

[41] Documents were disclosed on June 14, 2023 and are available through the following links: https://particip.gov.md/ro/document/stages/planul-de-implicare-a-partilor-interesate-sep-al-proiectului-modernizarea-si-imbunatatirea-serviciilor-de-reabilitare-p180306/10637; https://particip.gov.md/ro/document/stages/planul-de-angajament-de-mediu-si-social-pams-al-proiectul-modernizarea-si-imbunatatirea-serviciilor-de-reabilitare-p180306/10638; https://ms.gov.md/informatie-de-interes-public/proiecte/proiectul-bancii-mondiale-modernizarea-si-imbunatatirea-serviciilor-de-reabilitare/documente-preliminare/

62. **Political and governance risks will be mitigated by building consensus across the political spectrum, leveraging the collective action of multiple development partners and the broader package of World Bank support across sectors.** High political volatility in Moldova has hampered reform efforts to support a sustainable and inclusive long-term growth agenda; the country had six governments from 2015 to 2021. To mitigate this aspect in health, the GoM, with input from the WB, has developed a medium-term Health Reform Strategy – Moldova 2030, approved in July 2023, which will serve as a reference point for reform and investments. The PIU of the MoH will be strengthened to support implementation of Project activities. Multiple stakeholders from academia, civil society, and health professionals across the political spectrum as well as development partners were engaged in consultations to ensure broad-based support. In 2023, the WB, in partnership with SCO and the WHO, helped establish a development partner forum to facilitate consensus around the NCD agenda, and the Project will continue to work with this forum. In addition, the Project will support the institutionalization of key policy reforms by supporting the implementation and operationalization of legislation, serving as a counterbalance to potential political changes. Finally, the broader package of World Bank finance across all sectors will serve to address macroeconomic risks.

VII. RESULTS FRAMEWORK AND MONITORING

PDO Indicators by PDO Outcomes

Baseline	Period 1	Period 2	Period 3	Period 4	Period 5	Closing Period
PDO Indicator 1: NCD prevention and management in primary care facilities						
Primary care facilities following standardized protocols and guidelines for screening, prevention and management of hypertension and diabetes (Percentage)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0	0	0	30	50	60	70
PDO Indicator 2: Timely stroke treatment						
Eligible stroke patients who are treated with systemic thrombolysis, within 2 hours, in Project-supported facilities (Percentage)						
Sep/2022	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
31.1	35	40	45	50	60	70
PDO Indicator 3: Facility-readiness for stroke management						
Stroke patients treated in fully equipped, dedicated stroke units in Project-supported facilities (Percentage)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	0	20.00	40.00	60.00	80.00
PDO Indicator 4: Restorative rehabilitation for stroke and cardiac care						
Stroke and cardiac patients treated in Project-supported facilities who received restorative rehabilitation services (Percentage) (Percentage)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	15.00	30.00	45.00	60	75.00

Intermediate Indicators by Components

Baseline	Period 1	Period 2	Period 3	Period 4	Period 5	Closing Period
Component 1: Integrated care at the hospital level for NCD patients						
Hospitalized stroke patients recommended to a smoking cessation program out of smokers in Project-supported facilities (Percentage)						
Sep/2022	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029

64.7	65	70	75	80	85	95.00
Patients receiving a comprehensive rehabilitation assessment and discharge plan following a stroke or heart attack in Project-supported facilities (Percentage)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	0	30	50	60	80.00
Health care facilities with accessibility modifications enabling access for patients with disabilities in Project-supported facilities (Number)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	0	1	2	3	4.00
Component 2: Integrated prevention and rehabilitation services at the primary care and population-level						
Awareness activities targetting men and women on primary and secondary prevention of NCDs (disaggregated by gender) (Number)						
Aug/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0	0	0	2	5	0	5
Primary care providers trained in NCD management and rehabilitation care (disaggregated by gender) (Number)						
Oct/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
Female - 0, Male - 0	Female - 0, Male - 0	Females - 50, Male - 25	Female - 75, Male - 50	Female - 125, Male - 75	Female - 150, Male - 85	Female - 200, Male - 100
➢Female primary care providers trained in NCD management and rehabilitation care (Number)						
0	0	50	75	125	150	200
➢Male primary care providers trained in NCD management and rehabilitation care (Number)						
0	0	25	50	75	85	100
Hypertensive men and women whose hypertension is adequately controlled (disaggregated by gender) (Percentage)						
Feb/2022	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
Female - 9%, Male 7%	Female - 9%, Male 7%	Female 11%, Male 9%	Female 12%, Male 11%	Female 13%, Male 13%	Female 14%, Male 14%	Female 15%, Male 15%
➢Hypertensive men whose hypertension is adequately controlled (Percentage)						
7	7	9	11	13	14	15
➢Hypertensive women whose hypertension is adequately controlled (Percentage)						
9	9	11	12	13	14	15
Component 3: Pandemic preparedness						
Public health centers renovated (Number)						
Oct/2023	Dec/2025	Dec/2026				Dec/2027
0	2	3				4
Public health laboratories equipped with diagnostic equipment, test kits, and reagents (Number)						
Oct/2023	Dec/2025	Dec/2026				Dec/2027
0	1	2				3

Component 4: Project management						
Grievances submitted to the Project and addressed within stipulated time (Percentage)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	100	100	100	100	100.00
Beneficiaries satisfied with services provided as part of the Project (Percentage)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	85	85	85	85	85.00
Healthcare workers who are satisfied with Project-related trainings (Number)						
May/2023	Dec/2024	Dec/2025	Dec/2026	Dec/2027	Dec/2028	Dec/2029
0.00	0	85	85	85	85	85.00
Component 5: Contingent Emergency Response Component						

Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes

PDO Indicator 1: NCD prevention and management in primary care facilities	
Primary care facilities following standardized protocols and guidelines for screening, prevention and management of hypertension and diabetes. (Percentage)	
Description	This indicator responds to the 2023 SDI results, which identified that only six percent of patients received the full range of relevant services for their condition. Therefore, in the first year of the Project, the MoH will define a standardized protocol for screening and treatment of diabetes and hypertension in primary care settings. This will include required tests, guidance on lifestyle, medical history, tobacco use, alcohol consumption, and physical activity. Thereafter, primary care facilities supported by the Project will be required to implement the defined approach. Numerator: Number of Project-supported primary care facilities that are following standardized protocols and guidelines for screening, prevention and management of hypertension and diabetes Denominator: Number of Project-supported primary care facilities
Frequency	Annual
Data source	MoH and CNAM reports
Methodology for Data Collection	Annual reports aggregating facility level data from MoH and CNAM and surveys conducted by MoH
Responsibility for Data Collection	MoH
PDO Indicator 2: Timely stroke treatment	
Eligible stroke patients who are treated with systemic thrombolysis, within 2 hours, in Project-supported facilities (Percentage)	
Description	Early intervention for stroke patients, especially timely systemic thrombolysis, reduces the risk of severe stroke outcomes like disability and death. This indicator assesses the project's ability to cut treatment delays, ultimately improving patient outcomes.

	Numerator: Number of eligible stroke patients who are treated with systemic thrombolysis, within 2 hours, in Project-supported facilities Denominator: Number of stroke patients who were eligible for receiving systemic thrombolysis in Project-supported facilities
Frequency	Annual
Data source	RES-Q dataset
Methodology for Data Collection	RES-Q data collection process
Responsibility for Data Collection	MoH
PDO Indicator 3: Stroke treatment	
Stroke patients treated in fully equipped, dedicated stroke units in Project-supported facilities. (Percentage)	
Description	This indicator draws on RES-Q data, which showed that, in September 2023, across the country only 31.1 percent of stroke patients were treated in a stroke unit. By March 2024, MoH will have identified a final facilities to be supported by the Project and defined a set of features for a stroke unit (in terms of equipment, staffing and infrastructure) and each stroke bed. The definition should be included in the POM. Numerator: Number of stroke patients treated in fully equipped, dedicated stroke units in Project-supported facilities Denominator: Number of stroke patients treated in Project-supported facilities
Frequency	Annual
Data source	RES-Q dataset
Methodology for Data Collection	RES-Q data collection process
Responsibility for Data Collection	MoH
PDO Indicator 4: Restorative rehabilitation for stroke and cardiac care	
Stroke and cardiac patients treated in Project-supported facilities who received restorative rehabilitation services (Percentage)	
Description	This indicator responds to MoH and WHO assessments that there is a large unmet need for rehabilitation services, specifically, restorative rehabilitation in post-acute settings, to limit long-term disability. By March 2024, MoH will define a package of services for restorative rehabilitation and this indicator will assess provision in Project-supported facilities. Numerator: Number of stroke and cardiac patients treated in Project-supported facilities who received restorative rehabilitation services Denominator: Number of surviving stroke and cardiac patients treated in Project-supported facilities
Frequency	Annual
Data source	RES-Q dataset or MoH data collection
Methodology for Data Collection	RES-Q or MoH data collection process
Responsibility for Data Collection	MoH

Monitoring & Evaluation Plan: Intermediate Results Indicators by Components

Component 1: Integrated care at the hospital level for NCD patients	
Hospitalized stroke patients recommended to a smoking cessation program out of smokers in Project-supported facilities (Percentage)	
Description	This draws on RES-Q data that showed that, across Moldova in September 2022, 64.7 percent of smokers were referred to a smoking cessation program following a stroke. Numerator: Number of hospitalized stroke patients in Project-supported facilities who were smokers and who were recommended to a smoking cessation program Denominator: Number of surviving hospitalized stroke patients in Project-supported facilities who were smokers
Frequency	Annual
Data source	RES-Q dataset
Methodology for Data Collection	RES-Q data collection process
Responsibility for Data Collection	MoH
Patients receiving a comprehensive rehabilitation assessment and discharge plan following a stroke or heart attack in Project-supported facilities (Percentage)	
Description	This indicator will first require the MoH and CNAM to define an interdisciplinary package of services and the activities that are part of a comprehensive rehabilitation assessment in a post-acute setting following a stroke or heart attack by March 2024. Thereafter, the indicator will track the number of patients who receive a rehabilitation services assessment and a discharge plan that provides details on future care, the integration of services across health and social services and guidance on secondary prevention. Numerator: Number of patients receiving a comprehensive rehabilitation assessment and discharge plan following a stroke or heart attack in Project-supported facilities Denominator: Number of surviving patients who were treated for a stroke or heart attack in Project-supported facilities
Frequency	Bi-annual
Data source	MoH and facility reports
Methodology for Data Collection	MoH data collection
Responsibility for Data Collection	MoH
Health care facilities with accessibility modifications enabling access for patients with disabilities in Project-supported facilities (Number)	
Description	The 2023 SDI reported that only 30 percent of PHC facilities had adequate infrastructure to support the accessibility of the facility to patients with different needs. Therefore, this indicator will track the implementation of functioning ramps, lifts, tactile flooring, assistive technologies for visually-impaired patients, mobility-accessible toilets and bars and grab handles for the prevention of falls.
Frequency	Bi-annual reporting of progress towards assessing the needs of each facility, procurement and implementation.
Data source	Bi-annual facility reports and surveys

Methodology for Data Collection	Facilities to provide reports and photographic evidence of modifications
Responsibility for Data Collection	MoH
Component 2: Integrated prevention and rehabilitation services at the primary care and population-level	
Awareness activities targeting men and women on primary and secondary prevention of NCDs (Number)	
Description	This indicator focuses on the MoH's assessment that more can be done to inform the general population about actions that can be taken to address NCDs through health literacy campaigns, engagement in schools, mass media campaigns and materials in health care facilities. By targeting some awareness activities to men and women specifically, the Project seeks to address men's and women's distinct health care needs and barriers to accessing care. By May 2024, the MoH will develop a multi-pronged strategy across different mediums and for different targets and move to implementation thereafter.
Frequency	Annual
Data source	MoH assessment
Methodology for Data Collection	MoH recording information on the number of awareness activities conducted.
Responsibility for Data Collection	MoH
Primary care providers trained in NCD management and rehabilitation care (Number, disaggregated by gender)	
Description	This indicator seeks to assess the preparedness of the primary care workforce to address the growing burden of NCDs. By disaggregating the data by gender, this indicator allows for the evaluation of gender equity in training opportunities, ensuring that both male and female healthcare providers have equal access to NCD management and rehabilitation care education.
Frequency	Annual
Data source	MoH
Methodology for Data Collection	Records of training certificates issued
Responsibility for Data Collection	MoH
Hypertensive men and women whose hypertension is effectively controlled (Percentage)	
Description	According to the WHO's global report on hypertension (2023), only nine percent of women and seven percent of men met the criteria for effective hypertension control (blood pressure below 140/90) as defined by WHO and Moldova national guidelines. This indicator will track overall improvements in hypertension control from the baseline and a track reductions in the gender gap as a result of improved management of hypertensive patients in primary health care settings. It will monitor blood pressure control in people with diagnosed hypertension using electronic data or reports of facilities. The indicator will be disaggregated by gender.
Frequency	Bi-annual reporting
Data source	Medical records or facility surveys of uptake of antihypertensive mediciation, disaggregated by gender
Methodology for Data Collection	Medical records or facilty surveys, drawing on the SDI approach (for example, observational data collection), at selected facilities on an annual basis
Component 3: Pandemic Preparedness	

Public health centers renovated (Number)	
Description	The number of public health centers that have been renovated to a functional standard, in preparation for pandemic response
Frequency	Bi-annual reporting on progress towards establishing the centers in terms of procurement and construction
Data source	MoH reports
Methodology for Data Collection	Qualitative updates with photographic evidence and documentation, as is relevant. A funcational standard Is defined as being able to provide a comprehensive response to detect, prevent and treat diseases, with centres and are adequately staffed, relevant protocols and guidelines are in place and where all requied equipment is appropriately installed and maintained.
Responsibility for Data Collection	MoH
Public health laboratories equipped with diagnostic equipment, test kits, and reagents (Number)	
Description	The establishment of public health laboratories with diagnostic equipment, tests kits and reagents such that they can be functional in providing surveillance and disease monitoring in the event of a pandemic
Frequency	Bi-annual reporting on progress towards establishing the centers, e.g. in terms of each stage required such as preparation of terms of reference, procurement and photographic and documentary evidence, as needed
Data source	MoH
Methodology for Data Collection	MoH
Responsibility for Data Collection	MoH
Component 4: Project management	
Grievances submitted to the Project and addressed within stipulated time (Percentage)	
Description	The timely handling of grievances received through the grievance redress mechanism
Frequency	Quarterly
Data source	MoH / PiU
Methodology for Data Collection	Reports prepared by the PIU/MoH
Responsibility for Data Collection	MoH
Beneficiaries satisfied with services provided as part of the Project (Percentage)	
Description	This indicator will track the satisfaction of beneficiaries, through an anonymous third-party survey, to assess the quality of services, including the success of smoking cessation programs. The survey will use a variety of indicators covering the quality of services and equipment, the proficiency of healthcare staff, patient perceptions on the timeliness of care, patient perceptions on follow-up, information shared and prevention mechanisms. The findings of these surveys will be discussed with healthcare facilities and lessons learned will be integrated into future activities.
Frequency	Bi-annual updates on progress towards designing and implementing survey, administering survey and aggregating feedback themes to improve future practices.
Data source	MoH and providers, with a third-party survey provider
Methodology for Data	MoH contracting a third-party survey provider

Collection	
Responsibility for Data Collection	MoH
Healthcare workers who are satisfied with Project-related trainings (Number)	
Description	This indicator will track the satisfaction of healthcare workers who receive training related to rehabilitation services.
Frequency	Bi-annual reporting
Data source	Third-party surveys of participating healthcare workers of participating healthcare workers.
Methodology for Data Collection	Third-party surveys of participating healthcare workers of participating healthcare workers.
Responsibility for Data Collection	MoH
Component 4: Contingent Emergency Response Component	

ANNEX 1: Implementation Arrangements and Support Plan

1. **Implementation support considers the specific risks for the achievement of the PDO described above, the challenges faced by the GoM, and the sectoral context.** The WB's support will focus on: (i) TA to help the MOH overcome operational bottlenecks; (ii) ensuring compliance across fiduciary, social, and environmental domains; (iii) leveraging the support of development partners.

2. **TA and support will be provided to facilitate implementation of core Project activities.** In the initial stages of implementation, World Bank support will include TA to: (i) support the MoH and CNAM in defining the scope and operational modalities of developing new provider payment and incentive mechanisms for rehabilitation services; (ii) support the MOH to further develop the service delivery network, including prioritizing hospital and health facilities for renovation and equipment, as well as building an integrated care model for CVDs (further details are below); and (iii) build capacity of all health sector agencies, including the MoH, CNAM, NAPH and selected provider. TA by the World Bank will be financed by the WB's own analytical and advisory services (ASA) resources, as well as a World Bank-executed Trust Fund funded by SCO.

3. **To support the GoM in maintaining compliance with World Bank requirements, implementation support will be provided to the PIU and MoH.** The Project will require the establishment of a PIU, which builds on existing staff and additional hires, with relevant qualifications, so that it is appropriately staffed. To help the GoM manage environmental and social risks, the World Bank will monitor compliance through the reports submitted by the PIU and take remedial and supportive action, as needed. Proactive trainings and virtual check-ins will also be provided to facilitate timely understanding of key requirements and to provide guidance and share good practices on staying compliant with World Bank policies and requirements.

4. **In the first 12 months following Board approval, proactive implementation support will be provided – through in-person missions and regular virtual check-ins to facilitate a strong foundation for the following years.** To provide this support, virtual check-ins between the World Bank and Borrower teams will be conducted on a bi-monthly basis. These check-ins will enable the monitoring of progress, identification of challenges, and enable the respective teams to address issues affecting implementation. In addition, in-person implementation support missions will be conducted by the World Bank to visit Project sites, engage with providers and technical partners and support the PIU. Implementation support missions will provide an opportunity for the GoM and World Bank teams to collectively review progress made to date, discuss any challenges faced, and provide guidance on overcoming issues and maintaining compliance with World Bank requirements.

Table 1.1: Implementation support Plan

Timeline	Focus	Skills Needed	Resource Estimate
First year	• Institutional capacity strengthening • TA and support for the MoH and CNAM in the delivering improvements in the quality, efficiency, and accessibility of rehabilitation services • TA and support for the MoH and CNAM in the preparation of the new/expanded service packages, payment mechanisms, and data management, preparation of procurement activities • TA and support for the MoH and CNAM on E&S matters. • Provide guidance on third-party monitoring • Creating digital implementation support tools (where appropriate) • Training MoH, CNAM, other health agencies • Capacity strengthening activities	Project management, operational, technical (including M&E), fiduciary, environment, and social, digital solutions/information, communications and technology (ICT)	Three implementation support missions; just-in-time TA, including virtual check-ins
Second year	• TA and support for MoH and CNAM for downstream activities (civil works and payment mechanisms) • Implementation and procurement support as needed • TA to improve links between interdisciplinary providers to better enable integrated care • Adjustments to the digital implementation support tools as needed • TA to provide discharge planning and protocols from secondary to primary care • TA to develop home-based care models • Adjustments of actions as needed following the first 12 months of implementation • Support to public awareness campaigns	Project management, operational, technical (including M&E), fiduciary, environment, and social, digital solutions/ICT,	Two formal implementation support missions; just in-time TA
Mid-term Review (MTR)	• MTR and identification of mid-course adjustments	Project management, operational, technical (including M&E), fiduciary, environment, social	MTR mission
Yearly, following mid-term Review	• Implementation support to address bottlenecks and actions arising out of the MTR • TA and support for MoH and CNAM for downstream activities	Project management, operational, technical (including M&E), fiduciary, environment, and social, digital solutions/ICT,	Two formal implementation support missions; just in-time TA
Completion phase	• Implementation Completions and Results Report and final payments	Project management; fiduciary	Implementation Completion and Results Report mission

Source: World Bank.

Table 1.2: Team skills and annual time allocation

Skills Needed	Weeks (per year)	Comments
Project Management	12	Remote, with select missions
Technical Specialists	12	Remote, with select missions
FM Specialist	2	Local presence
Procurement Specialist	2	Local presence
Environmental Specialist	3	Remote, with select missions
Social Specialist	3	Remote, with select missions
Administrative Support	4	Local, Remote, with select missions
Legal	1	Remote

Source: World Bank.

Financial Management

5. **The FM arrangements, including existing capacities of MoH, were assessed in May 2023 in accordance with the FM Manual for World Bank IPF Operations to determine if these arrangements (budgeting, accounting, reporting, internal control, staffing, funds flow and audit) are satisfactory to the WB.** The Project FM assessment confirmed that: (i) FM staff of MoH and its PIU had experience in implementing WB-financed projects; (ii) the financial audits of ongoing and past World Bank financed projects implemented by MoH generally revealed no critical issues; (iii) the MoH prepares regular financial reports to the donors and to the GoM; (iv) the MoH applies national rules for budgeting, funds flow and internal control that are acceptable to the WB. The assessment concluded that the existing FM arrangements are acceptable and will be applicable for the Project. The MoH maintains the Project accounting system, capable of accurately tracking all Project resources and expenditures, and generating regular financial reports. The MoH will hold fiduciary responsibility for the Project. The FM arrangements are described below for each of the elements of FM system.

6. **Budgeting and planning**. The MoH has adequate budgeting and planning procedures in place. In previous projects the MoH has complied with MoF rules and procedures for budget approval, execution, reporting and monitoring. The same rules will apply for this Project. Funding from external sources is included in the annual state budget document of the country and provides the basis for opening budget allocations. The Project budget will be prepared based on procurement plan. The approved annual budget will be entered into the MoH accounting system and used for periodic comparison with actual results as part of the interim reporting.

7. **Accounting and reporting**. Project accounting will be conducted per Cash Basis International Public Sector Accounting Standards. The MoH will keep Project-related records in automated accounting software, which generates reports in the format required by the World Bank. Currently, it satisfies the MoF's statutory accounting and reporting requirements for public institutions. The MoH will utilize accrual accounting as required by local legislation.

8. **Internal control**. The existing internal control system at MoH is appropriate, and capable of providing reliable and adequate controls over FM and disbursement processes and procedures. These include controls for safeguard of assets, segregation of duties, authorization of transactions, review and approval of invoices, contract management and others. Internal control system as well as additional reporting and auditing requirements will be specified in detail in the FM chapter of the POM.

9. **Staffing**. The MoH has a small project management team which provides support in implementing the current Moldova Emergency COVID-19 Project (P173776) financed by the World Bank. The FM capacities of this unit are assessed as satisfactory. The MoH employs a chief accountant who has experience and good knowledge of World Bank requirements. Given that the workload is expected to increase significantly during the implementation phase, the MoH may need to

increase its FM capacity by hiring additional staff in coordination with the World Bank and the need for additional capacity will also be agreed upon prior to negotiations.

10. **Project interim financial reports (IFR)**. The IFRs will be used for the Project monitoring and supervision. The MoH has extensive experience in the preparation of financial reports for various donors and for the GoM. The format of the IFRs for the Project has been confirmed during assessment and includes: (a) Project Sources and Uses of Funds; (b) Uses of Funds by Project Activity; (c) DA Statement; (d) a Statement of Financial Position; and (e) Statement of Expenditure (SOEs) Withdrawal Schedule. These financial reports will be submitted quarterly to the World Bank within 45 days of the end of each quarter, with the first reports under the Project being submitted after the end of the first quarter of initial disbursement.

11. **External audit**. The MoH will be responsible for arranging an independent annual audit of Project financial statements. The audit will be conducted: (a) by independent private auditors acceptable to the World Bank, on ToRs acceptable to the World Bank; and (b) according to the International Standards on Auditing issued by the International Auditing and Assurance Standards Board of the International Federation of Accountants. Annual audit reports will be provided to the World Bank within six months of the end of each fiscal year and at Project closing. The Borrower has agreed to disclose the audit reports for the Project within one month of their receipt from the auditors and acceptance by the World Bank, by posting the reports on its official website. Following the World Bank's formal receipt of these reports from the Borrower, the reports will be made publicly available according to the World Bank Policy on Access to Information. Audit costs will be financed by the Project.

12. **Disbursement and flow of funds**. The FM accounting staff of the MoH have adequate knowledge of the World Bank disbursement policies and procedures. The MoH will establish a separate DA in the loan currency specifically for this Project at the National Bank of Moldova, which is acceptable to the World Bank. The Project disbursements, as well as Das and associated operating accounts, will be managed by the MoH with respect to the components they are responsible for. The operating accounts (opened in the Treasury of the MoF) will be used for payments in local currency obtained via conversion of DA currency. The expenditures paid from the DA will be documented to the World Bank through SOEs. Withdrawal applications documenting funds utilized from the DA will be sent regularly to the World Bank. A DA ceiling will be provided in the DFIL. In addition to the DA, the Project funds will flow from the World Bank through the direct payment method, reimbursement method and/or special commitments. Detailed instructions on withdrawal of loan proceeds with respect to these methods will be provided in the DFIL. The MoF will give authorization to designated officials to withdraw funds from the Project Financing account. The DA will be audited annually along with the audit of the project financial statements.

Procurement

13. **Project Procurement Strategy for Development (PPSD).** Based on the Project requirements, operational context, economic aspects, technical solutions, and market analysis, a PPSD has been developed for the Project. The PPSD identifies the following major types of activities: (a) consulting services; (b) goods; (c) works; and (c) non-consulting services. A market analysis has been carried out for the different procurement packages and, based on the findings, decisions on packages have been finalized for works, goods, consulting and non-consulting services to ensure adequate participation of bidders.

14. **Major procurement categories under the Project.** The total cost of the Project is US$51.1 million, of which US$16.74 million will be procurement of goods. Works will total approximately US$28.82 million, followed by information technology, in the amount of approximately US$1.68 million, and consulting services in the amount of approximately US$3.95 million. Major civil works contracts are those related to rehabilitation of medical facilities where the cost estimate per contract varies between US$1 million and US$5 million. All these works will be procured using the national market approach using the Request for Bids (RFB) method. Consulting services are of a different nature and complexity. These include design,

works supervision, development of national protocols for NCDs, training of medical staff, public awareness campaign, and others. The value of these contracts varies between US$40,000 to US$600,000. The largest consulting services contract currently estimated at US$600,000 provides for the design and supervision. Most of these contracts will follow the national market approach, with several following the international market approach for which Quality and Cost Based Selection method will be applied. Several contracts will apply the Least Cost selection method given their standard nature. Major contracts for supply of goods, information technology systems and non-consulting services include: procurement of musculoskeletal and neurological rehabilitation equipment, equipment and assistive technologies, scaling-up of existing telemedicine and digital health programs, equipment to support implementation of telemedicine, procurement of "Join" and "JoinTriage" software for emergency medical service providers, procurement of equipment for the infrastructure of the "Join" telestroke platform and "JoinTriage," procurement of equipment for patients with disabilities, and others. The value of these contracts varies between US$500,000 and $7 million. Most of the contracts will follow the international market approach. There are several contracts that will follow the national market approach given their comparatively small value and availability of a strong local market in the respective area. The PPSD confirmed that there is an adequate number of national and international bidders for all the above activities. Although market research finds a significant number of potential consultants/suppliers within Moldova for the types of services needed, the participation of reputable and qualified international consultants will benefit Project implementation. Therefore, the World Bank recommends using international markets for critical and larger-value contracts. For procurement following the international market approach, the World Bank's Standard Procurement Documents should be used.

Table 1.3: List of major contracts supported by the Project

Contract Description	Estimated Cost (US$)	Selection Method	Approach	Planned Year
Rehabilitation of facilities at the regional level (inpatient and outpatient) multiple packages	14,280,000	RFB (works)	National	2027
Procurement of Musculoskeletal and Neurological Rehabilitation Equipment for MoH Hospital, Republican Children's Rehabilitation Center and District Hospitals	7,240,000	RFB (goods)	International	2026
Equipment and assistive technologies at PHC level	4,600,000	RFB (goods)	International	2025
Rehabilitation support materials - assistive technologies at hospital level	2,000,000	RFB (goods)	International	2025
Equipment to support implementation of telemedicine	1,000,000	RFB (goods)	National	2025
Procurement of equipment for the infrastructure of the Join telestroke platform and "JoinTriage" in hospitals with Stroke Centers, for National Stroke Registry within the Comprehensive Stroke Center and the National Center for Prehospital Emergency Medical Assistance	750,000	RFB (IT)	International	2026
Procurement of equipment for patients with disabilities at PHC level models	1,800,000	RFB (goods)	National	2026
Refurbishment of infrastructure for NAPH - Laboratory, Storage Facility and Regional Centers	5,300,000	RFB (works)	National	2024

Source: Extracted from PPSD.

15. **Procurement under the CERC.** It was agreed that once the CERC is triggered, the MoH will revise the PPSD to include a section applicable to the CERC. The CERC-PPSD will focus mainly on complex contracts and new or innovative procurement, rather than smaller, routine contracts. The PPSD will describe how procurement opportunities and risks will be managed in emergency circumstances and how suppliers and contractors will be motivated to bid and incentivized to perform. Procurement arrangements under the CERC will be streamlined. The World Bank's oversight and due diligence for procurement will be done through augmented implementation support with close monitoring, increased procurement-

related post review, and/or third-party procurement reviews. Given that the CERC is contingent and event-driven, no Procurement Plan for the CERC can be prepared ex-ante.

16. **National Procurement Procedures.** In accordance with paragraphs 5.3 – 5.6 of Procurement Regulations, when approaching the national market, the country's own procurement procedures may be used, if agreed under the PPSD. Public procurement regulations in Moldova were assessed and it is concluded that the National Procurement Procedures cannot be used at this stage. The new Public Procurement Law Number 131, which entered into effect on May 1, 2016, is better adjusted to the EU Directives. While the Public Procurement Law provides a good basis for the public procurement system and properly draws the legal framework for a sound public procurement system, the law has not been fully implemented/applied and there are still critical areas which require major reforms, including the e-procurement system. The Government has recently finalized the National Program for the Development of the Public Procurement System for the period 2023-2027 and intends to embark on major reforms in this sector.

17. **Complaint handling mechanism.** The Project is required to ensure recording of procurement-related complaints in the STEP system. The World Bank and MoH will use STEP to track complaints. The MoH will be responsible for performing the following actions in STEP: (a) promptly record all complaints relating to procurement process; (b) for procurement process complaints received on contracts subject to the World Bank's prior review, submit the MoH's proposed response to each complaint before issuing it to the complainant(s); (c) record the MoH's response to the procurement process complaints upon issuance to the complainant(s); and (d) promptly register requests for debriefings and update STEP with the record of the debriefings to interested parties. Procurement-related complaints arising in connection with contracts where the World Bank's Standard Procurement Documents are required to be used will be handled in accordance with Annex III of the Procurement Regulations. Procurement-related complaints under national market approach contracts will be handled in accordance with the procedures defined in the POM.

18. **Systematic Tracking of Exchanges in Procurement (STEP).** STEP will be used under the Project. All procurement transactions for post and prior review contracts under the project must be recorded in/processed through the World Bank's planning and tracking tool – STEP. This ensures that comprehensive information on procurement and on the implementation of all contracts for goods, works, non-consulting services, and consulting services awarded under the project are automatically available. This tool will be used to manage the exchange of information (such as bidding documents, bid evaluation reports, no-objections, and other procurement documents) between the MoH/PIU and the Bank.

19. **General Procurement Notice.** This will be prepared by the PIU and submitted to the World Bank after negotiations. The World Bank will arrange for its publication in United Nations Development Business online and on the World Bank's external website. The General Procurement Notice will contain information concerning the Borrower; amount and purpose of the financing; scope of procurement reflecting the procurement plan; the Borrower's contact point; if available, the address of a free -access website where the subsequent Specific Procurement Notices will be posted and, if known, an indication of the scheduled dates for the specific procurement opportunities.

20. **Procurement documentation.** All documentation with respect to each procurement will be retained by the MoH according to the requirements of the Legal Agreements. The MoH will furnish such documentation to the World Bank upon request for examination by the World Bank or by its consultants/auditors. Documents with respect to procurement subject to post review will be furnished to the World Bank upon request.

21. **Procurement prior review thresholds.** The procurement prior review thresholds will be set by the World Bank based on the Project's procurement risk level. All contracts at or above the set thresholds are subject to international advertising

and the use of the World Bank's Standard Procurement Documents. Use of certain procurement approaches—specifically best and final offer, procurement processes involving contract negotiations, competitive dialogue, and sustainable procurement—are not foreseen under the Project but these approaches will be subject to the World Bank's procurement prior review, irrespective of the contract value, if the decision is taken during Project implementation to apply them. The applicable thresholds are defined in the table below and will be specified in the textual part of the Procurement Plan.

Table 1.4: Prior Review Threshold

Type of Procurement	Method Threshold (US$, millions)	Prior Review Threshold
Works (including Turnkey, Supply & Installation of Plant and equipment, and PPP)	Open International ≥ 10 Open National < 10 Request for Quotations < 0.4	All contracts above US$15 million equivalent
Goods, Information technology and Non-Consulting Services	Open International ≥2 Open National < 2 Request for Quotations < 0.2	All contracts above US$4 million equivalent
Consulting firms	Selection Based on Consultants' Qualifications < 0.3 Least Cost Selection and Fixed Budget Selection - in justified cases Quality- and Cost-based Selection and Quality-based Selection - in all other packages National Consultant Ceilings < 0.5	All contracts above US$2 million equivalent
Consulting - individuals	No threshold	All contracts above US$400,000 equivalent
Direct selection	No threshold Thresholds defined above for the respective expenditure	As per paragraphs 6.8-6.10 of the Procurement Regulations

Note: Thresholds may be modified based on Project procurement performance

Corporate Commitments

Citizen engagement

22. **During implementation, citizen engagement processes will serve as the basis to strengthen health service delivery and assess beneficiary satisfaction with service delivery and resource provision.** Regular satisfaction surveys will be used to understand and improve the experience of health care workers participating in trainings and capacity building activities; as part of Sub-Components 2.1 and 2.2, bi-annual patient satisfaction surveys will be used to understand patient experiences. These survey will measure the quality of services and equipment, the proficiency of healthcare staff, patient perceptions on the timeliness of care, patient perceptions on follow-up, information shared and prevention mechanisms. The findings of these surveys will be discussed with healthcare facilities and lessons learned will be integrated into future activities. In recognition of potential biases, the surveys will be administered by an independent third-party organization and feedback will be collected on an anonymous basis, with healthcare facilities being required to describe changes being made on an annual basis. This approach is based on feedback through the preparation process which highlighted that feedback mechanisms where patients were identifiable would likely lead to a positive reporting bias due to fears of lower quality care in future healthcare episodes.

23. **The Project will also establish an accessible and multi-channel grievance redress mechanism (GRM) that will facilitate the submission of complaints, suggestions, and recommendations on all issues related to project activities and services.** The GRM will be operated by the PIU and accept complaints submitted via the phone, email, and through digital platforms (e.g., QR codes placed in healthcare facilities). The Project's GRM will also closely collaborate with the institutional hotline operated by the MoH.

Gender and Inclusion

24. **In 2019, men lost 20 percent more years of life due to hypertension compared to women, despite women having higher rates of cardiovascular disease prevalence and mortality, which indicates that men are dying at much younger ages from these conditions.**[42] Indeed, the healthy life expectancy of men is five years lower than for women. This can be partially explained by men's higher rates of risk factors, such as tobacco use, poor diet, high body mass index, and harmful alcohol use; however, this discrepancy also signals that the Moldovan health system may not be adequately responding to men's health needs.

25. **The 2022 STEPS survey and the 2023 global report on hypertension highlight a differential in the standard of care for NCDs between the sexes, particularly for hypertension.** Across the hypertension care cascade, men receive subpar care compared to women: men show lower rates of hypertension screening, awareness of their condition, and adherence to medication for its management. According to the 2022 STEPS survey, 7.4 percent of the population has never had a blood pressure check by a healthcare worker, with the proportion of men being twice that of females, at 9.8 percent, compared with five percent. Awareness of hypertension is also higher among women, with 68.3 percent of women recognizing their condition versus 51.7 percent of men. The 2023 WHO global report further highlights these disparities, noting that 54 percent of hypertensive men are diagnosed (versus 65 percent of women), 31 percent are receiving treatment (compared to 42 percent of women), and only seven percent have their condition under effective control (versus to nine percent of women). The higher prevalence of adverse risk factors, exacerbated by less effective management of hypertension amongst men, culminates in inequitable health outcomes along gender lines. As high blood pressure is a salient modifiable risk factor for NCDs, early detection and effective management is critical to improve individual and population health outcomes.

26. **The Project will address, monitor and seek to close the gender gap in the diagnosis and management of hypertension.** The data in the preceding paragraph point to three key bottlenecks in health care for men: (1) awareness of hypertension and its risks to health; (2) effective screening and diagnosis of hypertension; and (3) effective treatment to achieve control of hypertension. Accordingly, relevant Project activities will be designed and implemented with the aim of helping to close gender gaps in hypertension standards of care. Specifically, the Project will support invitations and awareness campaigns to encourage men to have their blood pressure checked, as screening is the first step toward controlling and managing hypertension according to clinical guidelines. Additionally, disease surveillance modules will be adapted to ensure that accurate gender-disaggregated data on the prevalence of hypertension is collected, analyzed and reported; clinical guidelines and care pathways to improve the diagnosis and treatment of hypertension will be designed to identify and address men and women's distinct health care needs and specific barriers to accessing care. The Project will monitor the gap between the percentage of hypertensive men and the percentage of hypertensive women whose hypertension is adequately controlled as an intermediate indicator.

27. **The Comprehensive Gender Assessment identified unequal care responsibility as one of the main reasons for women's low labor force participation.** Women's inactivity reaches maximum levels in the reproductive period (15–34 years old) and in retirement (55+ years old), when the employment rate decreases by about 30 percent. In 2020, the employment rate for women aged 45–54 was 61 percent, and for those over the age 55, it was 34 percent.[43] Through interventions in primary care settings and population-level interventions, and by improving the quality and availability of rehabilitation services, Project activities seek to limit the incidence of severe and long-term disability, thereby reducing the overall level of caregiving needs arising from acute episodes of NCDs.

[42] Global Burden of Disease Collaborative Network, *Global Burden of Disease Study 2019* (Seattle: Institute for Health Metrics and Evaluation, 2021).
[43] United Nations Moldova, "Moldova Comprehensive Gender Assessment," 2021, https://moldova.un.org/sites/default/files/2022-06/ENG_Gender%20assesment%2028.04.pdf.

28. **Despite significant achievements in the health sector in recent decades, patients with disabilities still face exclusion in Moldova.** The recent PHC Performance Initiative assessments identified substantial variability in the infrastructure available to support patients with disabilities in health facilities. Only 79 percent of surveyed facilities had a functioning ramp, eight percent had a functioning elevator, 42 percent had tactile flooring, and 14 percent of facilities had toilets for patients with mobility limitations. Thus, the accessibility of health facilities is a challenge for Moldova, particularly for patients suffering and recovering from strokes and acute cardiac episodes. These accessibility constraints are reflected in wider disparities in education and subsequently work opportunities for people with disabilities. Principles of universal access will guide Project preparation in terms of physical access, safety and emergency protocols and guidelines, and access to health services to facilitate improvements in the inclusion and safety of patients with different needs.

Climate

29. **Climate change and natural hazards have an impact on health in Moldova and increase the vulnerability for NCD and CVD patients through heat events and other extreme weather events.**[44] Rising air temperatures aggravate cardiovascular and respiratory diseases, particularly among the young and elderly.[45] Extreme temperatures were associated with a higher risk of death from CVD causes between 1979 and 2019.[46] Following the 2007 drought, six heat waves were recorded that led to 146 excess deaths in Chisinau.[47] Women, the elderly, and those with CVD were the most sensitive to the heat wave.[48] Without any adaptation, heatwave-related excess mortality is expected to increase by 150 percent under the highest emission scenario between 2031-2080, compared to 1971-2020.[49] Cold weather extremes were also associated with mortality between 2001 and 2010 in Chisinau.[50]

30. **In response to broader challenges affecting health services, Moldova has shown commitment to addressing climate change, not least given that it increases the vulnerability of patients with NCDs and in need of rehabilitation services, and in alignment with the Paris Agreement**. Moldova ratified the Paris Climate Agreement in 2016. The Ministry of Environment and Natural Resources promotes pertinent policies and ensures that the provisions in the Paris agreement set out by the United Nations Framework Convention on Climate Change are enforced.[51] Aligned to the agreement, Moldova submitted the National Determined Contribution (NDC) highlighting their climate action goals to reduce greenhouse gas emissions and build resilience to adapt to the impact of climate change. Moldova has a NDS 2030 that recognizes climate change as a risk to the development agenda.[52] The Action Plan for 2020-2023 presents the GoM agenda and includes the establishment of mechanisms to adapt to and mitigate climate change.[53] The country developed the

[44] United States Agency for International Development (USAID), "Climate Risk Profile: Moldova," 2017, https://www.climatelinks.org/resources/climate-risk-profile-moldova.
[45] USAID, "Climate Risk Profile: Moldova."
[46] B. Alahmad et al., "Associations between Extreme Temperatures and Cardiovascular Cause-Specific Mortality: Results From 27 Countries," *Circulation* 147, no. 1 (2023): 35–46, https://www.ahajournals.org/doi/full/10.1161/CIRCULATIONAHA.122.061832.
[47] USAID, "Climate Risk Profile: Moldova"; Roman Corobov et al., "Heat-Related Mortality in Moldova: The Summer of 2007," International Journal of Climatology 33, no. 11 (2013): 2551–60, https://rmets.onlinelibrary.wiley.com/doi/10.1002/joc.3610.
[48] Ala V. Overcenco et al., "Impact of High Ambient Temperature on Human Mortality During Hot Summer 2007 in the Republic of Moldova," Proceedings of the Bioclimate 2012 "Bioclimatology of Ecosystems" International Scientific Conference (2012): 80–81, http://www.cbks.cz/SbornikUsti12/Conference%20Proceedings.pdf.
[49] Yuming Guo et al., "Quantifying Excess Deaths Related to Heatwaves under Climate Change Scenarios: A Multicountry Time Series Modelling Study," PLoS Med 15, no. 7 (2018): e1002629, https://doi.org/10.1371/journal.pmed.1002629.
[50] Ala Overcenco et al., "Cold Period Weather Conditions and Death Cases in Chisinau, Republic of Moldova," Journal of Hygiene and Public Health 64 (2014): 46–55, https://www.researchgate.net/publication/282703773_COLD_PERIOD_WEATHER_CONDITIONS_AND_DEATH_CASES_IN_CHISINAU_REPUBLIC_OF_MOLDOVA.
[51] USAID, "Climate Risk Profile: Moldova."
[52] State Chancery of the Republic of Moldova, "National Development Strategy 'Moldova 2030'" [in Russian], Climate Change Laws of the World, LSE/Grantham Research Institute on Climate Change and the Environment, https://www.climate-laws.org/geographies/moldova/policies/national-development-strategy-moldova-2030.
[53] Government of Republic of Moldova, "Decision #636," Chișinău, Moldova, December 11, 2019, https://gov.md/sites/default/files/document/attachments/pag_2020-2023.eng__0.pdf.

National Program for Energy Efficiency (2011-2020) and the Environmental Strategy for 2014-2023.[54] In 2014, the Climate Change Adaptation Strategy and its implementation plan were approved.[55]

31. **The Project was screened for short- and long-term climate change and disaster; the risk of climate hazards in Project locations and beneficiaries is rated as High, but the risk to Project outcomes is considered Moderate due to the Project's climate resilience strategies.** Mean annual temperature was 10.89°C between 1990 and 2020 and is projected to increase to 12.30°C[56] by 2040. Mean precipitation is expected to increase from 497.74 mm to 535.05 mm from the period 1990–2020 to 2040. Moldova is increasingly vulnerable to climate risks including droughts, floods, severe weather, earthquakes, and landslides. Floods are the highest occurring hazards accounting for 43.5 percent of all occurrences between 1980 to 2020. In 2010, approximately 12,000 people were affected by floods. Droughts and extreme temperature are also common, with each representing 18.75 percent of all natural hazards between 1980 and 2020. Droughts have been persistent and have increased in intensity due to increased temperature and reduced precipitation, with the southern parts particularly vulnerable.[57] Extreme temperature has increased mortality in the country. These hazards can have a severe impact on agricultural production, with average annual losses from hydrometeorological hazards comprising about three percent of gross domestic product.[58] Natural hazards can also have a severe impact on other vulnerable segments of the population, including females, children, students with disabilities and special needs, and refugees, who bear the brunt of the impacts from climate hazards. The Project will support the provision of more resilient and safe health facilities and improve their efficiency. It will also continue strengthening health sector resilience by building capacity of the MoH for supporting vulnerable patients in emergency situations, and these capabilities can be leveraged for climate risks.

32. **Climate Co-Benefits.** The Project will seek to reduce climate vulnerability by contributing to climate co-benefits: (1) adaptation interventions that increase the resilience to climate change related shocks; and (2) mitigation interventions that reduce the net build-up of greenhouse gases, particularly given that the health facilities contribute significantly to climate change, and improving their infrastructure and efficiency will help to mitigate the sector's climate impact. The Project will finance infrastructure investments that are climate-friendly, ensuring that all investments in civil works broadly support global climate initiatives and the EU Green Deal, considering Moldova's EU membership aspirations. The Project will also include measures to avoid, minimize, or mitigate risks with regards to climate change, particularly when program activities are located within areas prone to climate change and related natural hazards. Adaptation and mitigation measures to reduce emissions and move towards greener technologies will be supported through: (1) the use of energy-efficient designs and climate-resilient infrastructure that incorporates appropriate materials and technologies, in the event of new construction; (2) wider use of energy-efficient information technology and health facility equipment; and (3) deployment of digital technologies in service delivery, thereby reducing the need for travel and the use of consumables in clinical settings.

33. **Paris Alignment.** The Project is aligned with the country's updated NDC. Among key mitigation activities identified in the 2021 NDC is the improvement of the infrastructure of hospitals to enable them to operate with "green" standards.[59] The Project has identified mitigation interventions that reduce the net build-up of greenhouse gases, particularly given that the health facilities contribute to climate change and improving their infrastructure and efficiency will help to mitigate the sector's climate impact. Investments in equipment and infrastructure will be climate informed in design to ensure that

[54] Republic of Moldova, "Government Decision no. 301 of 24.04.2014 on the Approval of the Environmental Strategy for the Years 2014–2023 and of the Action Plan for Its Implementation," https://wedocs.unep.org/bitstream/handle/20.500.11822/9507/-Environmental_Strategy_for_the_years_2014-2023-2014Moldova_EnvironmentalStrategy_2014-202.pdf?sequence=3&isAllowed=y.
[55] Government of Republic of Moldova, "Decision no. 1009 of 10.12.2014 Approving the Climate Change Adaptation Strategy by 2020," https://www.climate-laws.org/geographies/moldova/policies/decision-no-1009-of-10-12-2014-approving-the-climate-change-adaptation-strategy-by-2020.
[56] Under emission scenario 8.5.
[57] Climate Change Post, "Moldova," May 23, 2023, https://www.climatechangepost.com/moldova/droughts/.
[58] Climate Change Knowledge Portal, "Moldova," World Bank, https://climateknowledgeportal.worldbank.org/country/moldova/vulnerability.
[59] Government of Republic of Moldova, "Updated Nationally Determined Contribution of the Republic of Moldova," United Nations Framework Convention on Climate Change, 2021, https://unfccc.int/sites/default/files/NDC/2022-06/MD_Updated_NDC_final_version_EN.pdf.

investments are not at material risk to physical climate risk impacts, while also increasing access to populations at high risk of climate-health risks. Key adaptation activities in the country's updated NDC include management of the impacts of extreme weather events including heat waves, cold waves, and floods.[60] The Project will finance the development of protocols for patient transportation during these climate hazards. The NDC additionally highlights the prioritization of capacity building to address climate change and promote awareness-raising.[61] The Project will finance trainings of healthcare workers on responsiveness to climate emergencies and the early detection of climate-sensitive diseases and conduct climate risk communication. Further, ensuring collaboration among subnational actors is a climate adaptation priority in the NDC.[62] Therefore, the Project will finance the multidisciplinary care for patients with programs and services that are climate informed. No specific risks with respect to the mitigation and adaptation aspects of the Paris Alignment Assessment are flagged at this stage. The Project intends to address vulnerabilities and enhance climate resilience and adaptation, while mitigating greenhouse gas emissions, through measures listed in Table 1.4 in Appendix 1. Table 1.4 provides an overview of climate-related actions by component.

Table 1.5: Overview of climate-related actions

Project Component and Financing	**Activity**	**Climate-Related Action and how it will adapt to or mitigate against climate change**
Component 1: Integrated care at the hospital level for NCD patients		
Developing and upgrading post-acute facilities, equipment, and services.	Rehabilitation of clinical facilities with solar and energy saving equipment.	The Project will support rehabilitation of clinical facilities with energy saving and solar equipment. The equipment and materials will be in accordance with standard of the International Electrotechnical Commission 60601-1-9.[a] The rehabilitation will be climate informed in design to ensure that investments are at material risk to physical climate risk impacts. This investment will build climate resilience by contributing to the reduction of greenhouse gas emissions in line updated NDC. **Mitigation**.
Strengthening emergency response capabilities for stroke, heart attack, and trauma.	Training of healthcare workers to respond to climate emergencies and disease outbreaks.	The Project will support training of healthcare workers on climate preparedness and measures to minimize increases in diseases following weather events including floods, droughts, and extreme temperature. Specific modules and materials on climate emergency preparedness and response will be developed and used in the trainings. This activity will build climate resilience by increasing the capacity of health facilities to address climate change and hazards. **Adaptation**.
	Protocols for emergency transportation of patients during climate hazards.	The Project will support the development of protocols to transport patients during climate hazards, including cardiac patients who are among the most sensitive to climate hazards in Moldova. The development of protocols will additionally reduce the impact of climate hazards such as floods and extreme heat on the health of patients, and contributes to climate resilience by enhancing the responsiveness to these hazards. **Adaptation**.
Component 2: Integrated prevention and rehabilitation services and the primary care and population level		
Primary care interventions for patients at risk of stroke	Disease management programs including prevention of climate-sensitive diseases.	The Project will finance the development of disease management programs that will include the prevention and management of climate-sensitive diseases such as cardiovascular and respiratory diseases that are known to increase during extreme temperatures in the country. **Adaptation**.

[60] Government of Republic of Moldova, "Updated Nationally Determined Contribution."
[61] Government of Republic of Moldova, "Updated Nationally Determined Contribution."
[62] Government of Republic of Moldova, "Updated Nationally Determined Contribution."

Project Component and Financing	Activity	Climate-Related Action and how it will adapt to or mitigate against climate change
and heart attacks.	Training of healthcare workers in early detection of climate-sensitive diseases.	In addition to training healthcare workers to respond to climate hazards, this component will support the early detection of climate-sensitive diseases, such as CVDs. **Adaptation**.
	Risk communication of climate hazards.	Public awareness campaigns will include risk communication of climate hazards and measures to take to prevent diseases in the event of climate disasters such as floods and extreme temperature. This will build climate resilience by increasing the public awareness of the potential climate impacts on health risks. Additionally, this will improve health resilience from climate risks. **Adaptation**.
	Scaling up of telemedicine and digital health programs.	The Project will finance the scaling up of telemedicine and digital health programs to better reach people in climate vulnerable areas and during climate shocks such as floods. This aligns with the updated NDC to harness technology for sustainable development. **Adaptation**. Additionally, the use of telemedicine will reduce the need to travel, thereby reducing carbon emissions. **Mitigation**.
Primary care follow-up for patients recovering from stroke and heart attacks.	Integration of climate resilient measures into multidisciplinary care for patients.	Multidisciplinary care for patients will include prevention and management of climate-sensitive disease. The Project will incorporate climate-informed modules within the design and dissemination of integrated care programs and services**.** **Adaptation**.
	Provision of home-based models to provide services during climate hazards.	The provision of home-based care will enhance the provision of health services in the event of climate hazards that make it difficult for vulnerable patients to reach health facilities in the event of climate hazards. The home-based care programs will be designed to be climate informed to ensure low emissions. **Adaptation**.
Component 3: Pandemic Preparedness		
Developing and upgrading physical infrastructure	Rehabilitation of clinical facilities with solar and energy saving equipment.	The Project will support rehabilitation of public health facilities with energy saving and solar equipment. The equipment and materials will be in accordance with standard of the International Electrotechnical Commission 60601-1-9.[b] The rehabilitation will be climate informed in design to ensure that investments are at material risk to physical climate risk impacts. This investment will build climate resilience by contributing to the reduction of greenhouse gas emissions in line updated NDC. **Mitigation**.
Component 4: Project Management		
Project Management	Monitoring and management of climate-related aspects of the Project.	This component will finance Project monitoring and management of climate activities and will be assessed at the same rate as other Project activities. The data will be gender-disaggregated whenever applicable. **Adaptation**.

Source: World Bank.

a. IEC, "IEC 60601-1-9:2007+AMD1:2013+AMD2:2020 CSV. Consolidated Version" (Medical electrical equipment, Part 1-9: General requirements for basic safety and essential performance; Collateral Standard: Requirements for environmentally conscious design).

b. IEC, "IEC 60601-1-9:2007+AMD1:2013+AMD2:2020 CSV. Consolidated Version."

ANNEX 2: Technical background and assessments

1. **In December 2022, the World Bank began to assess the state of rehabilitation services in Moldova (Table 1.1).** Emerging findings highlighted opportunities to improve the workforce, beds and facilities, the overall approach to service provision, and quality of care. There are currently not enough: occupational therapists and nutritionists, and most professionals would need specialized training for rehabilitation services. There are currently not enough beds for restorative rehabilitation. It will be important to strategically augment bed capacity, without incurring long-term costs that compromise sustainability. In terms of approach, rehabilitation focuses on medico-pharmacological therapies, while international standards call for a broader approach and includes health literacy and secondary prevention—preventive rehabilitation. To improve quality, protocols need updating so that the workforce can spot early warning signs, continuously assess rehabilitation needs, develop personalized plans, triage high-risk events, and proactively manage health conditions in primary care settings. Better follow-up care and hospital discharge could improve patients' transition into community care.

Table 2.1. Review of current service provision of rehabilitation services based on WHO guidance

WHO Recommendation	Assessment	Description of status quo
Rehabilitation services should be integrated into health systems.	Fulfilled	• Services currently available are part of the public health system but demand outstrips supply
Rehabilitation services should be integrated into and between primary, secondary and tertiary levels of health systems.	Partly fulfilled	• Services are primarily available in hospital wards, and tertiary care is only available in Chisinau. • In primary care, provision is locality-dependent; rural provision is very limited. • There is no integration between the different health sectors.
A multidisciplinary rehabilitation workforce should be available.	Partly fulfilled	• In hospital wards and in inpatient rehabilitation centers, multidisciplinary teams, including physiotherapists (kinetotherapists), nutritionists, and psychologists, are available. This is not the case in primary or home care. • Nutritionists are lacking in general, and multidisciplinary teams that have specialist training in rehabilitation are rare outside of cities.
Both community and hospital rehabilitation services should be available.	Not fulfilled	• Hospital rehabilitation services are available, but there are very few professionals who can support rehabilitation in the community or at home.
Hospitals should include specialized rehabilitation units for inpatients with complex needs.	Partly fulfilled	• While there are specialized rehabilitation units in Chisinau, it was reported that the units in the rational hospitals were being used as NCD or palliative care units in practice, even though they are called rehabilitation units.
Financial resources should be allocated to rehabilitation services to implement and sustain service delivery recommendations.	Partly fulfilled	• A financing mechanism for rehabilitation services has been established, but too few services are being provided outside of the hospital settings, resulting in people having to make many out-of-pocket payments.
Where health insurance exists or is to become available, it should cover rehabilitation services.	Partly fulfilled	• CNAM partially covers rehabilitation services but coverage could benefit from expansion.

Source: World Bank.

2. **In 2021, the World Bank assessed integrated care provisions and identified areas of good practice and the need to strengthen three critical enablers: technology infrastructure, financing mechanisms, and workforce.** E-health and technology systems can provide the data to design, monitor and evaluate services, and facilitate the safe and effective transfer of information between services and sectors. Moldova's health system is largely paper based. The 2021 review identified the beginnings of an infrastructure to support telemedicine, in addition to progress made through COVID-19. For example, during the pandemic, youth- friendly centers transferred all their services to telemedical and virtual consultations and this was enabled by pooled budgeting and innovations in payment mechanisms. The hospital sector uses an electronic data information system, linked to CNAM, primarily for administrative processes. No such

system exists for primary care, and steps to improve technology capabilities could help care transitioning along integrated care pathways and shared care planning between professionals and patients.

3. **Hospital financing draws on payment through Diagnosis-Related Groups (DRGs) and some elements of pay-for-performance; however, to truly drive integration of care, improvements are needed in the performance assessment framework, monitoring system and instrument design.** Prior to COVID-19, PHC providers were paid by capitation (about 85 percent) and by performance (15 percent). The World Bank's 2021 assessment of integrated care provision identified that the budget is often not high enough to provide support for the delivery of all services outlined in guidelines. As there is no performance measurement system in place, it is also difficult to capitalize on the advantages of a pay-for-performance system in practice. Hospitals are paid mostly using DRGs for acute care, and medicines provided in the hospital are fully covered. The separation of health and social care budgets can also hinder the streamlined delivery of services. A different structure could better facilitate integrated care; however, there is no one instrument that meets all criteria. Pilots at the regional level, to support learning and iteration, can facilitate the transition to a health financing system that can incentivize improved quality and efficiency for rehabilitation services.

4. **In 2023, the World Bank reviewed healthcare staffing and identified issues across training, job satisfaction and retention and role design.** Moldova has too few nurses and they are primarily trained to a secondary level with a lower scope of practice compared to nurses in peer countries. This places additional burdens on post-graduate trainees and residency-level physicians, exacerbating the challenge of staff retention. Most new medical graduates prefer not to join rural district hospitals, as the facilities lack the equipment required to support international post-graduate training. While salaries have been increased over the last two years by 10 percent, they remain uncompetitive with nearby Romania. Moldova currently has 44,000 positions in hospital settings and occupancy, overall, is high at 90 percent.[63] Nevertheless, the center and south of the country have a lower per capita number of physicians than the north, and people living in rural areas are less likely to consult specialists, pharmacists, and dentists than people living in urban areas.

5. **Addressing the three critical enablers can prevent strokes and AMIs[64] and the risk of recurrent CVD events is high but can be reduced by almost 70 percent.** Due to the rise of preventable risk factors in younger populations, CVD events increasingly occur in younger adults, with negative implications on workforce productivity. Successfully preventing diseases requires a high level of health literacy, self-management and integrated care. This entails strengthening health promotion and prevention and increasing the understanding of social determinants of health among health and social care professionals.

Broader challenges affecting the health system: refugee populations and pandemic preparedness

6. **Russia's invasion of Ukraine has resulted in Moldova hosting more 116,000 refugees[65] who are particularly vulnerable to CVDs because of their existing disease burden and their exposure to trauma from the war.** As a share of its population, Moldova has hosted more Ukrainian refugees than any other country. Most Ukrainian refugees are women and five percent of refugees are estimated to have disabilities. In 2021, 18 percent of refugees were identified, by WHO, as having CVDs. Studies of refugee populations have identified that multiple war-related stressors increase the complexity and severity of CVDs, necessitating specializing attention, particularly in PHC settings.[66]

[63] CNAM and MoH data, April 2023
[64] Centers for Disease Control and Prevention, "Preventing Stroke Deaths: Progress Stalled," September 6, 2017, https://www.cdc.gov/vitalsigns/stroke/index.html.
[65] WHO, "Ukrainian Refugees Granted Mental Health and Psychosocial Support in Republic of Moldova," news release, February 22, 2023, https://www.who.int/europe/news/item/22-02-2023-ukrainian-refugees-granted-mental-health-and-psychosocial-support-in-republic-of-moldova.
[66] WHO, "Ukrainian Refugees Granted Mental Health and Psychosocial Support"; Hanna Al-Makhamreh et al., "The Impact of War-Related Stress on Coronary Artery Disease Severity in War Survivors: A SYNTAX Study," *International Journal of Environmental Research and Public Health* 18, no. 6 (2021): 3233, doi:10.3390/ijerph18063233.

7. **The GoM's experience of COVID-19 led to improvements in pandemic preparedness and the introduction of many positive practices; nevertheless, a substantial unfinished agenda remains.** Moldova's overall Global Health Security Index 2021 score is 41, ranking 71st out of 195 countries.[67] The highest Global Health Security Index score (48.3) was recorded for the ability of the health system to treat the sick and protect health workers, whereas early detection and reporting epidemics of international concern has the lowest score (34.2). Several good practices were identified in the 2020 Country COVID-19 Intra-Action Review;[68] however, prolonged health care reform, insufficient government funding, weak supply chains for emergency goods, inadequate hospital bed capacity, weak infection prevention and control programming especially in the regions and rural areas, limited digital health infrastructure and interoperable electronic registers still need to be addressed.

GoM Response

8. **The GoM is committed to improving care in 'the golden hours'[69] and is developing a national network of stroke centers.** The College of the MoH issued a decision on June 24, 2022, and a Ministerial Order was issued on October 16, 2023. The decision describes plans for a three-tiered network (with Primary, Multidisciplinary and Comprehensive centers), including 10 Primary Stroke Centers (PSC) in nine raional hospitals (Edinet, Soroca, Orhei, Ungheni, Hincesti, Causeni, Cahul, Comrat, Municipal Clinical Hospital, and Balti Clinical Hospital). A Multidisciplinary Stroke Center (MSC) will be established at the Institute of Neurology and Neurosurgery, where patients from PSCs can be transferred for endovascular and neurosurgical treatment. A Comprehensive Stroke Center (CSC), at the Institute of Emergency Medicine, will serve as the governing and advisory body for all stroke centers. Annex 3 provides further details.

9. **Some progress has been made in improving the national protocols and guidelines to support integrated care, however, more can be done.** The GoM has drawn on international standards[70] in its approach to two new national stroke protocols and this approach will be expanded into cardiac care: the National Clinical Protocol (number 205) Cardiovascular rehabilitation;[71] and the Stroke Rehabilitation Protocol (number 181).[72] More can be done to strengthen integrated care in CVD rehabilitation. This includes developing and implementing a template for an integrated person-centered rehabilitation plan, as well as improving the description of the roles and responsibilities in CVD rehabilitation pathways and addressing the gap between phases. Patients and their families also need to understand the risks of not complying with the recommendations concerning medication and lifestyle changes. In addition, low- to high-tech solutions need to be implemented to raise accessibility to care and specialist advice. Finally, financing rehabilitation services needs to be set on a new footing to cover the whole pathway. In recent years, the GoM has introduced a new role in the health care system, that of the community medical assistant, designed to support the integration of health and social care and strengthening this role would be an important step forward.

10. **Telemedicine and electronic health management capabilities are being improved.** The State University of Medicine and Pharmacy (Nicolae Testemitanu), the Institute of Emergency Medicine, the Moldovan Association of

[67] Scores are normalized (0-100, where 100 = most favorable)
[68] World Health Organization. 2023. Country COVID-19 Intra-Action Review (IAR) Report. Republic of Moldova. *forthcoming*
[69] The two hours after a traumatic injury are considered the most critical for emergency treatment that can reduce long-term disability and death.
[70] The British Association for Cardiovascular Prevention and Rehabilitation (BACPR) Standards for improving integrated care for CVD include a focus on guidelines and protocols. The BACPR defines cardiovascular rehabilitation as: "The coordinated sum of activities required to influence favorably the underlying cause of CVD, as well as to provide the best possible physical, mental and social conditions, so that the patients may, by their own efforts, preserve or resume optimal functioning in their community and through improved health behavior, slow or reverse progression of disease." BACPR, "The BACPR Standards and Core Components for Cardiovascular Disease Prevention and Rehabilitation 2017,"
3rd ed., https://www.bacpr.org/__data/assets/pdf_file/0026/39437/BACPR_Standards_and_Core_Components_2017.pdf.
[71] MoF, "Protocol clinic naţional 'Reabilitarea medicală a bolnavului cu accident vascular cerebral,'" approved by Order of the MoF no. 1326, December 26, 2012, https://msmps.gov.md/wp-content/uploads/2020/07/13318-Ordinul20MS20nr.132320din2026.12.2012.pdf.
[72] Ministry of Health, "Reabilitarea medicală a bolnavului cu accident vascular cerebral Protocol clinic national: PCN-181," Chişinău, Moldova, 2012, https://msmps.gov.md/wp-content/uploads/2020/07/13319-PROTOCOL20AVC2022.11.12.pdf. The protocol was approved by Order of the MoH no. 264, March 29, 2023.

Neurology, and the MoH have established a national initiative for telemedicine for acute neurological services. This involves linking hospitals without local expertise in stroke treatment to specialist neurologists in central hubs. Telemedicine will be used to provide remote diagnostics and radiological investigations, and to develop treatment plans. Legislation to support the network will be introduced in 2023. It will consider data security, confidentiality of patient data such that it is appropriately secured in Moldova.

11. **Workforce planning and staffing models are also being strengthened, including the development of a 10-year human resource plan to provide training, financing and TA.** The GoM is developing two regional hospitals to provide greater opportunities for staff. To support this development, redesigning ward teams and the role of hospital doctors could be an important step forward, as well as ensuring that roles are informed by guidance from international Colleges of Rehabilitation Medicine, which offer well-defined standards, specific to sub-specialization and case-mix, multi-disciplinary and outreach from hospital to care in the community.

12. **The GoM mobilized an extensive COVID-19 response program, with the support of the World Bank, and recently adopted the Action Plan to Implement the International Health Regulations 2005 in Moldova for 2023-2027 and adopted National Program on Prevention and Control of Priority NCDs for the same period.** This Action Plan, based on the recommendations from the COVID-19 IAR, has been developed by the MoH and the NAPH, together with relevant national authorities and strategic partners. This complex cross-sectoral framework foresees the activities for development, strengthening and maintaining the core International Health Regulations capacities, such as strengthening surveillance, establishing electronic systems for communicable disease and public health events, developing early warning systems. To address the high NCD disease burden, the GoM has adopted the National Program on Prevention and Control of Priority NCDs for the period 2023-2027, which focuses on an integrated approach towards the risk drivers for NCDs and multi-sectoral actions for health promotion, health-friendly environments, tobacco and alcohol control, improvement of nutrition, reduction of air pollution, and improvement of the surveillance and management of NCDs in health services.

13. **The GoM granted temporary protection to displaced Ukrainians and, more recently, in 2023, established a legal framework to provide refugee populations with access to healthcare services.** On February 28, 2023, the MoH and CNAM formalized health care provisions for refugee populations through Ministerial Orders 142 and 143 on the approval of the regulation of the registration with the family doctor for beneficiaries of temporary protection.[73] In 2022, healthcare services for refugees cost US$3.02 million and US$ 495,241 in the first two months of 2023. Table 4 provides a summary breakdown of selected health care costs, financing sources and service lines. With an expanded legal framework in place and the ongoing nature of the conflict, it is anticipated that the demand for healthcare services will increase from their current average of US$292,681 a month—or equivalent to US$17.56 million over the course of the Project. This Project would continue to support the provision of healthcare services for refugee populations in primary care and emergency settings relating to chronic diseases and facilitate equitable access to services.

Table 2.2. Total financing of health services and selected services lines for refugee populations in Moldova in 2022 and 2023

Type of medical care	2022 Total	Financed by external sources	Financed by Government Intervention Fund	Total for January and February of 2023	Financed by external sources	Financing gap
Total (in Moldovan lei)	54,664,472	38,378,627	16,285,844	8,973,390	5,031,841	3,941,549
Total (in US dollars)	3,016,932	2,118,116	898,816	495,241	277,707	217,534

Source: CNAM.

[73] MS nr.143 din 28.02.2023 privind serviciile medicale acordate beneficiarilor de protecție temporară. OMS143/2023 (legis.md); Ordin MS și CNAM nr.142/54-A din 28.02.2023 despre aprobarea Regulamentului privind înregistrarea la medicul de familie a beneficiarilor de protecție temporară. OMS142/54/2023 (legis.md)

ANNEX 3: Stroke Center Capabilities

Box 1. Strengthening Moldova's Stroke Center Capabilities

PSCS will be established at 10 hospitals and will be equipped with the following capabilities:

- Accept and refer patients according to the regionalized acute stroke referral network.
- Diagnose and stabilize stroke patients received through emergency departments staffed 24/7 with on-call emergency department physicians.
- Request and receive telemedicine support from specialists at the CSC.
- Provide lower levels of stroke treatment (systemic thrombolysis) and post-stroke rehabilitation and technical capacities:
    - Diagnostics performed through computed tomography (CT) and doppler ultrasound equipment.
    - Laboratory services enabling 24/7 testing for platelet count, prothrombin time, and international normalized ratio tests, as well as basic hematological and biochemical (e.g., electrolyte panel, blood glucose, hematocrit) tests.
    - Systemic thrombolysis treatment.
    - Dedicated intensive care beds for stroke patients, equipped with monitors for heart rate, electrocardiogram, blood pressure, blood oxygen saturation, respiration, and body temperature; lung ventilators; computerized electroencephalography monitoring; and automatic infusion pumps.
    - Acute neurorecovery wards.

MSCs will be established at the Institute of Neurology and Neurosurgery. Longer term plans envision the eventual elevation of Cahul District Hospital, Municipal Clinical Hospital, and Balti Clinical Hospital to MSC status. In addition to the capabilities and technical capacities of the Primary Stroke Centers, the MSC will be equipped with the following capabilities:

- Manage patients through multidisciplinary stroke teams, comprised of an emergency physician, a neurologist, an intensive care physician, a laboratory physician, an interventional radiologist (or endovascular surgeon), a neurosurgeon, a vascular surgeon, and a CT technician.
- Conduct advanced diagnostic testing and imaging to determine the origin, type, and severity of a stroke.
- Provide higher levels of stroke treatment (endovascular and neurosurgical treatment, including thrombectomy).
- Provide higher intensity post-stroke rehabilitation (including care from physiotherapists, speech therapists, kinesiotherapists, and psychologists).
- Thrombectomy treatment and endovascular and neurosurgical treatment.
- Nuclear magnetic resonance spectroscopy and angiography systems.
- Cerebrovascular disease, neurosurgery, and vascular surgery wards.

A CSC will be established at the Institute of Emergency Medicine. The CSC will serve as the governing and advisory body for all Stroke Centers with the following capabilities, additional to MSCs:

- Telemedicine systems (Join and JoinTriage or their equivalents) for remote consultation with Stroke Centers.
- Headquarters for the National Emergency Medical Assistance Service for inter-hospital transfer of patients.
- Headquarters for the National Acute Stroke Registry.

ANNEX 4: Prospective Financing

In addition to the IBRD resources, the Project is expected to be co-financed by the Pandemic Fund Grant for US$5.6 million and SCO for US$5.5 million. This funding is subject to the approval of financing agreements between the Bank and the donor.

1. **Financing from The Pandemic Fund would introduce an additional component to focus on preparedness activities.** The Government of Moldova was awarded this funding on July 20, 2023 (https://www.worldbank.org/en/news/press-release/2023/07/20/pandemic-fund-allocates-first-grants-to-help-countries-be-better-prepared-for-future-pandemics). Of the $10 million in financing, US$5.612 million would be channeled through a World Bank loan and this would finance activities relating to the refurbishment of the NAPH infrastructure and building additional storage facilities, as well as refurbishing the public health laboratory network infrastructure and endowing it with necessary equipment to ensure early warning and surveillance functions. These interventions will result in an improvement of the national public health surveillance while aligning with national and international standards. The component finances equipment and infrastructure improvements in selected regional facilities, as well as TA activities including training and the development of preparedness protocols and guidance.

2. **Financing from the SCO would support Component 2 and 4, focusing on preventive care in PHC settings and additional strengthening of project implementation capacities.** It is anticipated that the SCO would provide up to $5.5 million in Co-Financing for Additional Financing to cover population level and primary-care interventions to improve the awareness of and prevention of NCDs and reduce the dependency on costly hospital services. Funding provided by SCO will support: the implementation of disease management programs; training for healthcare workers to better manage chronic disease conditions and to detect the early signs of strokes and heart attacks; public awareness campaigns to address the major risk factor for stroke and heart attacks, including hypertension, slat consumption, physical inactivity, and diet; and scale up of existing telemedicine and digital health programs to improve access to counseling to address risk factors for vulnerable populations. The selection of these activities draws on the findings of the 2023 SDI. This comprehensive study of PHC identified that only six percent of patients received the full range of relevant services for their condition during PHC consultations, pointing to a significant gap in the provision of care. These activities were selected by the GoM in recognition of SCO's long-standing support and experience in PHC interventions and focus on the improved governance and quality of primary care services.

ANNEX 5: Development Partner Engagement in NCD and Rehabilitation Services

This annex provides an overview of relevant major projects, across four areas, financed by development partners.

Table 5.1 Detailed Overview of Development Partner Engagement in Selected Areas

Partner	Activities	Amount US$
Group 1. Primary Healthcare strengthening		
WHO	• **Improved access to quality essential health services irrespective of gender, age, or disability status:** Develop the Roadmap on Integrated People-centered PHC; support for the implementation of the National Health Strategy and health sector governance initiatives; support to strengthen quality improvement; support for the development of a health worker management strategy.	4,282,000
Group 2. Noncommunicable diseases		
SCO	• **Reducing the burden of noncommunicable diseases, Phase II:** Improve the health status of rural populations by reducing the burden of NCDs. • **Support for mental health services reform in Moldova, Phase III**: Enhance access to support, resources, and services in mental health programming.	4,150,918 4,130,475
WHO	• **Addressing the social determinants of health across the life course:** Support revision of legislation on salt reduction and trans-fat elimination; sustain the development and implementation of the NCD Action Plan; support the development of a strategic framework on Environment and Health; improve the Occupational Health Framework. • **Multisectoral partnerships for legislative and fiscal measures:** Provide TA to manage NCDs and related risk factors effectively; provide technical support to the GoM to advance implementation of the Framework Convention on Tobacco Control on combating illegal tobacco trade.	4,282,000[74]
CEB (Council of Europe Development Bank)	• **Ambulance services for the National Centre for Pre-Hospital Emergency Care:** Improve the quality of emergency services and reduce mortality in the first 24 hours of hospitalization; strengthen capabilities of medical, paramedical, and operative personnel involved in emergency medical care; strengthen the management system, coordinating and monitoring the activities of the emergency medical assistance service, including the mobile emergency service.	12,754,808
Group 3. Infrastructure improvements, medical devices, and equipment for rehabilitation services		
WHO	• **Improved equity of access to essential health services:** Improve the Hospital Master Plan regarding accessibility of health; support strengthening disability, rehabilitation, and assistive technology policies. • **Pharmaceutical Product Access and Market Shaping:** Improve governance and stewardship of pharmaceutical services and other health technologies; facilitate improved availability and increased affordability of medicines and other health technologies; support the delivery of a situation assessment and profiling of procurement and supply management system.	
EC	• **Robots dedicated to neuromotor efficiency:** Improve neurological services, kinesiotherapy, neurosurgery, and reanimation by upgrading facilities at the Institute of Neurology and Neurosurgery in Chisinau and organizing knowledge exchanges of experience and training for relevant specialists.	1,517,875

[74] US$ 4,282,000 represents the total funding from WHO for PHC, NCD and rehabilitation services), a more detailed breakdown is currently not available.

ANNEX 6: Results Chain

Figure 6.1 Results Chain

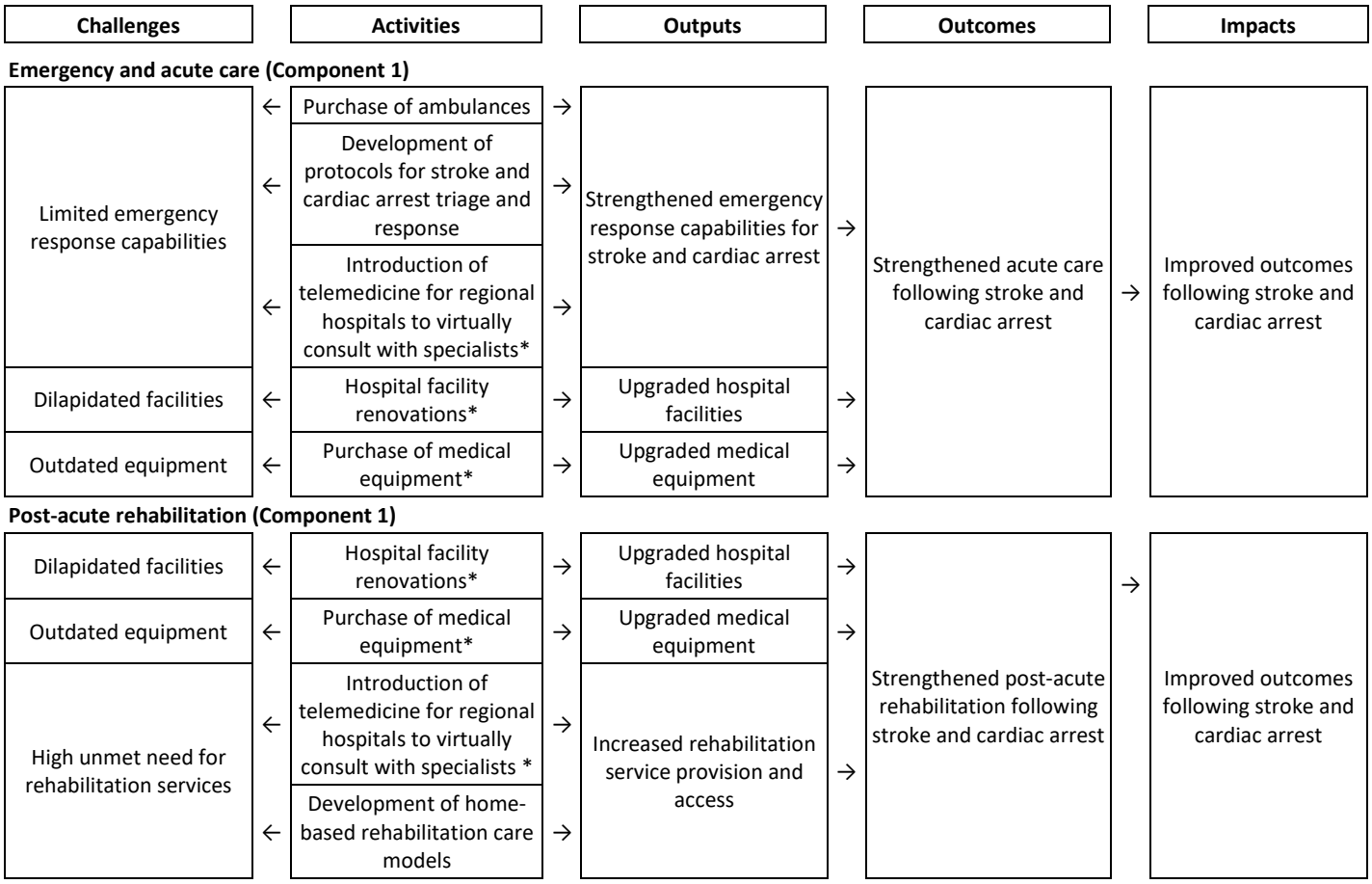
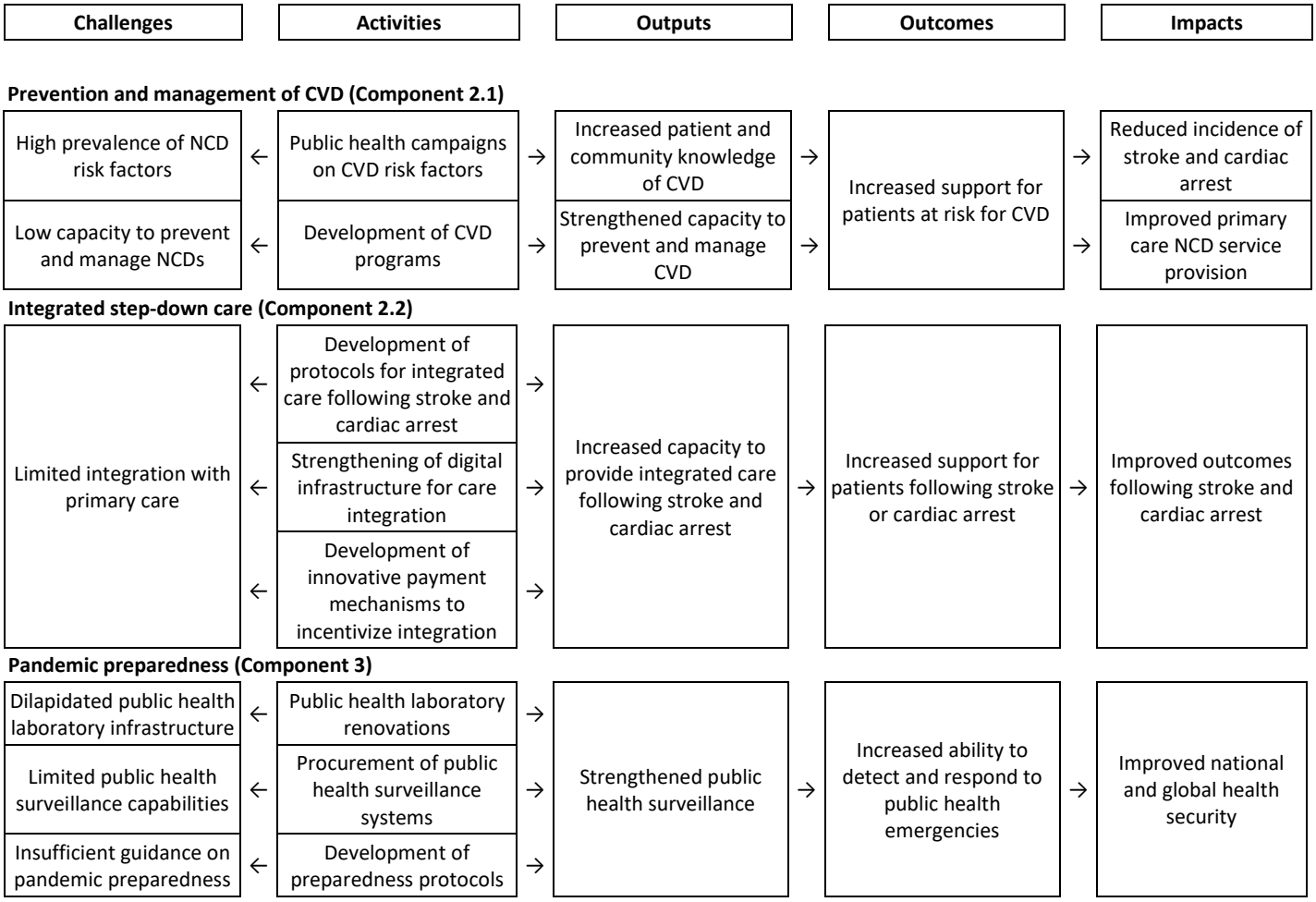


Figure 6.1 Results Chain (continued)



Source: World Bank.