Development of guidelines to reduce under-five child mortality in the Republic of Moldova

Overview

Efforts throughout the early 2000s to reduce child mortality in the Republic of Moldova were met with success, reducing deaths from 23 per 1000 live births in 2000 down to 13 in 2010.[1] However, despite improvements, child mortality rates remained above the WHO European Regional average and disproportionately affected children from rural areas, lower socioeconomic families and migrant populations.[1,2] In light of persisting challenges, the government developed an under-five child mortality reduction initiative through intersectoral collaboration across ministries. In 2010, government regulation was enacted to provide a framework for action and step-by-step guide for activities. The aim of the initiative is to reduce hospital admissions and increase preventive measures for at-risk children through broadening the care continuum to include consideration of social factors. The initiative has reorganized providers to encourage joint-sector delivery between health and social sectors. At-risk children are recorded in a database and jointly managed by health providers and social workers cooperating in teams. Following an official assessment according to government protocols, a personalized care plan is jointly developed for at-risk children by care teams. Children are then monitored on a monthly basis or as often as needed. While initial investments to train providers were supported by development partners, the initiative is now fully self-sustaining and embedded within the existing health system and legislative structure.

Problem definition

Despite a drop in child mortality rates in the Republic of Moldova throughout the 2000s,[2] in 2010 rates remained above the WHO European Regional average at 12 per 1000 live births compared to 8 per 1000. Furthermore, vulnerable populations – including children from rural areas, low socioeconomic families, migrant populations and single parent households – were disproportionally affected, with the main cause of mortality being respiratory disease, specifically pneumonia (Box 1).

Services and disease screening for newborns were largely reliant on out-of-date practices, including an overemphasis on clinical assessment and limited recognition of wider risk factors, such as children's home environment. While reforms in the early 1990s introduced family medicine, most general practitioners were previously internal medicine specialists who had been retrained to provide primary care. However, insufficient continuing education for providers relating to the detection and treatment of childhood illness hindered timely diagnostic treatment. Furthermore, a lack of education for parents on early warning signs and necessary action steps contributed to child mortality.

Box 1

What problems did the initiative seek to address?

- Elevated rates of child mortality in home settings, particularly for vulnerable populations.
- Out-of-date practices for the detection and treatment of childhood illness, with an overly clinical focus.
- Limited education for providers and new parents regarding childhood illness.

Health services delivery transformations

Timeline of transformations

In 1998, in response to high under-five child mortality rates, the Republic of Moldova adopted the Integrated Management of Childhood Illness (IMCI) Strategy developed and recommended by WHO and UNICEF. Despite progress in child mortality rates being achieved throughout the 2000s, research examining persisting root causes highlighted

Table 1
What were the chronological milestones for the initiative?

1998	IMCI Strategy launched to address child mortality through improved case management at health facilities, strengthened health system support and enhanced provision of care.
2010	At-home mortality in children under five remains high; research conducted on root causes implicates poor social conditions and lack of provider recognition of needs.
Late 2010	Initiative to address social problems linked to child mortality developed through interministerial collaboration; government decree officializes proposed initiative.
2011	National implementation of the child mortality reduction initiative begins.
2012	Observation standards revised to increase supervision requirements for vulnerable families.
Present	Continued implementation of the initiative according to regulations in place.

providers' limited recognition of children's wider needs as a concern in 2010. In light of this research, the initiative for the reduction of at-home mortality in children under five was developed (Table 1), being formalized through government decree late in 2010. National implementation of the initiative began in January 2011, with new standards and protocols for the observation of child illness put in place. At present, the initiative continues to be implemented according to regulations in place.

Description of transformations

Selecting services. All children are eligible for free standardized medical care under the guaranteed state benefits package. Specific services are now targeted to the under-five population living in vulnerable households including rural, low socioeconomic, migrant and single-parent families. Social support services for vulnerable groups include legal advice, help with medical and legal documentation (including passports and birth certificates), unemployment assistance and food aid.

Designing care. Health and social services delivery for the under-five population living in vulnerable households follows a defined assessment path with step-by-step instructions on identifying problems and determining appropriate follow-up actions. An initial assessment using a government-defined questionnaire is carried out by both a health provider and social worker. A second more comprehensive assessment then follows, enabling development of a personalized care plan based on individual needs. Reassessments are then conducted monthly or more frequently if warranted. New screening protocols guide symptom assessment in community settings, reducing the need for laboratories and specialist equipment from previous standards. A simplified three-category model is applied to determine intervention: category one – immediate hospitalization; category two – outpatient treatment; and category three – specialized care at home. Applying this model has supported increased responsiveness by providers to children's symptoms.

Organizing providers. Health providers are organized according to the IMCI structure with the majority of health services delivered by primary-level providers, with referral to secondary or tertiary levels as needed. Home care services are now available for children under five living in vulnerable households, increasing access to care for this population group. Health providers work in teams with social workers to collectively assess risk and make treatment decisions. Personalized care plans distribute responsibility among care team members, each responsible for the actions assigned to them.

Managing services. District-level seminars with heads of primary care and social services were held to develop the managerial capacity of local administrations to enable them to assume a coordinating function between health and social services. Joint-sector delivery between health providers and social workers enables the effective provision of services making use of resources already in place. In two districts, technical input and occasional financial support are provided by the charitable foundation, Lumos.

Improving performance. Training for health providers and social workers in the country's four largest districts was carried out. To cover the training needs of other areas, district coordinators and other leaders for primary care and social services were invited to training seminars and were then responsible for training subordinates in their local areas. Intersectoral care teams conduct informal performance reviews for each case of under-five child mortality occurring while under supervision of care teams. These meetings bring together both health providers and social workers to discuss strengths and weaknesses of the care provided to strategize improvements for future cases.

Table 2
How was the delivery of health services transformed through the initiative?

Before	After
Selecting services	
All children eligible for free standardized medical care under the guaranteed state benefits package; social services also available.	At-risk children targeted to receive tailored health and social services.
Designing care	
No defined care pathways or tools for the management of at-risk children.	Defined assessment requirements and step-by-step case management instructions dictate care pathway for at-risk children; personalized care plans developed based on needs identified during standardized assessments.
Organizing providers	
Majority of care provided at primary level with referrals to secondary or tertiary care as needed; limited collaboration between health providers and social workers.	Home care services made available for at-risk children to increase care access; health providers and social workers jointly coordinate and manage care for at-risk children.
Managing services	
Separate delivery of services by health providers and social workers.	Strengthened capacity of district-level administrations to coordinate health and social services; joint-sector delivery between health providers and social workers; some technical input and assistance provided by charitable organizations at the district level.
Improving performance	
No specific training on reducing at-home mortality in at-risk children under five.	Trainings held for health providers and social workers; intersectoral care teams review performance and strategize improvements for each supervised case of under-five mortality.

Engaging and empowering people, families and communities

Social support services provided through the initiative aim to assist and empower families in caring for their children. Caregivers are provided with both verbal and printed information on how to care for children's health and receive assistance for a variety of needs, such as obtaining legal documentation for their child, finding employment and securing necessary material resources. All caregivers in the Republic of Moldova can also attend parenting school sessions held in polyclinics on topics such as nutrition, vaccinations, child development and safety. These sessions are open to caregivers with children of all ages and serve as an important source of information.

Health system enabling factors

The government created a supportive regulatory environment across sectors to help address at-home mortality in children under five (Table 3). Step-by-step protocols for child assessment and subsequent actions required by both health and social sectors are formalized through government decree, holding health providers and social workers accountable for delivering services as required. Ongoing priority actions for quality assurance of paediatric care based on IMCI principles are focused on developing policy tools on integrated supportive supervision.

The initiative capitalized on previous strengthening of provider competencies as part of the IMCI Strategy. Furthermore, previous trainings conducted as part of the Strategy are now credited through the continuous medical education system and IMCI recommendations have been integrated in the curriculum for all medical schools, fostering continuing development of providers' skills relating to child health.

Registries recording data on all at-risk children currently residing in each district are used by providers

Table 3
How has the health system supported transformations in health services delivery?

System enablers	Example
Accountability	• Government decree officializes actions required by health and social sectors relating to child health. • Local districts required to report status updates to the Ministry of Health every three months.
Competencies	• IMCI trainings accredited and included in continuing medical education. • IMCI principles integrated into formal medical training.
Information	• Improvements made to information systems to enable tracking of at-risk children through database registries. • Situational reports inform on the number of at-risk children in each district and actions taken to address problems at the local level.

to identify children requiring assessment and support. Data is also reported to the Ministry of Health for monitoring and evaluation purposes, enabling assessment of initiative's impact on child mortality rates. Local districts are required to report status updates to the Ministry of Health every three months.

Outcomes

The initiative has built on progress in under-five child mortality rates achieved through the IMCI Strategy to decrease at-home child mortality through increasing social support to vulnerable families. For the first time in two decades, at-home child mortality accounted for only 15% of all-child mortality; down from approximately 25% in previous years. Informal reports indicate families are happy with the increased support services provided.

Change management

Key actors

Change has been driven through a top-down approach by the Ministry of Health with cross-ministry support at the national level. Understanding that the complex multifactorial nature of the problem warranted an intersectoral approach, the Ministry of Health formed collaborative partnerships across sectors with other ministries, as well as with international partners, to facilitate implementation of the initiative (Box 2).

Box 2

Who were the key actors and what were their defining roles?

- **Ministry of Health**. Conducted initial research on the causes of at-home child mortality in partnership with Lumos; led development of the initiative in collaboration with other ministry departments (including the Ministry of Labour and Social Security and the Ministry of Internal Affairs); continues to oversee implementation and monitor outcomes for the initiative.
- **Lumos**. Conducted initial research on the causes of at-home child mortality in partnership with the Ministry of Health; provided technical support in developing the regulations to support the initiative; led professional trainings in two districts; provides ongoing assistance as needed.
- **UNICEF**. Carried out professional trainings in two districts (different districts to Lumos).

Initiating change

The initiative aligned with the Ministry of Health's pre-existing agenda for addressing child mortality. Having observed the persistently high levels of at-home mortality in children under five, research was carried out to identify root causes. Evidence gathered from this research identified unaddressed social determinants of health as a key area for action, serving as an argument for the development and adoption of the government decree on reducing at-home mortality in children.

Implementation

The initiative is implemented according to regulations and standards set by the government, which provide a clear framework for action. Within this regulatory framework, health providers and social workers work in collaborative partnerships and share responsibilities to effectively deliver services. Intersectoral team meetings serve as a self-evaluation mechanism to assess individual contributions to team functioning and strategize improvements to the implementation of care plans.

Moving forward

The initiative continues to be implemented according to the established regulatory framework in place and all activities are considered sustainable.

Highlights

- Guidance and support from the Ministry of Health led to coordinated intersectoral action.
- Research conducted prior to the initiative identified the root causes of problems and provided the evidence needed to stimulate action.
- Educating and expanding providers' competencies challenged pre-held attitudes regarding the detection and treatment of childhood illness.
- Joint-sector delivery by health providers and social workers facilitated more comprehensive and coordinated care for patients.
- National ownership over the initiative was a key enabler; activities were fully integrated into national standards and backed by a supportive legislative framework.

1 Centre for Health Policies and Analysis in Health. (2010). *Evaluation of integrated management of childhood illness initiative (IMIC) in the Republic of Moldova: Years 2000-2010*. Chisinau: UNICEF. Retrieved from http://www.unicef.org/evaluation/files/Moldova_2011_009_IMCI_Evaluation_ENG(1).pdf

2 World Health Organization. (2015). *European health for all database*. Retrieved from http://data.euro.who.int/hfadb/tables/tableB.php?w=1440&h=900