Joint appraisal report

Country	Moldova
Reporting period	*January – December 2015*
Fiscal period	*January – December*
If the country reporting period deviates from the fiscal period, please provide a short explanation	*N/A*
Comprehensive Multi Year Plan (cMYP) duration	*2011-2015; 2016-2020 cMYP is being finalized*
National Health Policy duration	*2012-2021*

1. SUMMARY OF RENEWAL REQUESTS

Programme (NVS)	Recommendation	Period	Target	Indicative amount paid by Country	Indicative amount paid by Gavi
IPV –in current presentation	*Extension*	*2017*	*TBC*	*US$ 0*	*US$ TBD*

Indicate interest to introduce new vaccines with Gavi support	Programme	Expected application year	Expected introduction year
	HPV Demo	*2016*	*2017*

2. COUNTRY CONTEXT

Key changes and events since the last Joint Appraisal (conducted in July 2015):

- Appointment of the new Minister of Health – August 2015
- Transition Grant funding disbursed to WHO – August 2015
- 2015 co-financing commitments fulfilled – September 2015
- Start of the Transition Action Plan implementation by UNICEF and WHO – late 2015
- Full self-financing of rotavirus and pentavalent vaccines – as of January 2016
- Switch to UNICEF SD procurement of traditional vaccines (not guaranteed long-term) – January 2016
- Transition monitoring visit with WHO RO, WHO and UNICEF CO and Gavi Secretariat – May 2016
- Public health reform – under way (increased pay for doctors)
- cMYP 2016-2020 development – programmatic and costing parts finalized, final document expected in Q3 2016.
- Presidential elections planned for October 2016

Key country data (2016):

- 2016 is the last year of Gavi support for Moldova. Gavi will not provide any vaccine support (with the exception of IPV and HPV, if the country's application is approved) or any TA support to Moldova as of 2017.
- Transition status – accelerated transition phase. End of transition phase – December 2016. Full self-financing of vaccines as of 2017.
- 2015 GNI – US$ 2,220 (reported on 1 July 2016). Down from US$ 2,550 in 2014.
- Eligibility status: no longer eligible to apply for new vaccines, with the exception of HPV in September 2016
- Issues with coverage and equity: progressively declining coverage since 2009; no coverage with new vaccines and lower coverage with traditional vaccines in Transnistria region (45% DTP3 and 47% polio coverage).
- Unstable economic and financial situation

Key recommendations for 2017 based on JA Update discussions and review of country performance:

- Ensure EPI program's ability to be self-sustainable following transition from Gavi support through continued strengthening resource mobilization capacities.
- Conduct necessary preparatory activities and analyses to ensure successful introduction of HPV and IPV vaccines in 2017 and their acceptance by parents and medical personnel.
- Continue addressing medical workers' concerns about safety of new vaccines and immunization in general;
- Continue addressing vaccine hesitancy and refusals through use of qualitative research, and through development and implementation of communication strategies aiming at behavior change; and
- Improve data quality and align data systems with international requirements by conducting a data quality review and implementing its recommendations.

3. GRANT PERFORMANCE AND CHALLENGES

3.1. New and underused vaccine (NVS) support

3.1.1. Grant performance, lessons and challenges

Programmatic performance:

Moldova's National Immunization Programme (NIP) hosted by the National Centre of Public Health (NCPH) remains a strong performing program in the EURO region despite recent challenges linked to declining vaccine coverage and difference in coverage between districts.

2015 coverage against most of the 12 antigens administered within the NIP framework was slightly below 90%, with the exception of the vaccines administered at birth (BCG and Hepatitis B), as confirmed by WHO/UNICEF coverage estimates, disease surveillance and epidemiology. For several vaccines (DTP1, DTP3, Polio3, MCV2 and RotaC) coverage fell as compared to 2014 data.

Coverage significantly below targets was noted for rotavirus vaccine (62%, a slight decrease from 69% in 2014) and 3rd dose of PCV vaccine (71%). Rotavirus vaccination continues to lag behind that of other vaccines due to missed opportunities to vaccinate (caused by short-term contraindications, age restrictions, and lack of effective call and recall system). Low PCV3 coverage in 2015 can be explained by the hesitancy of parents and medical staff with respect to this new vaccine. Coverage with the 1st dose of PCV vaccine in 2015, according to official country estimates, was also relatively low at 77%.

As in the other countries in the region, key reasons for declining coverage rates in Moldova are false contraindications (such as anemia which is diagnosed in 25% of children under 5), refusals due to increasing anti-vaccination campaigns in social media, parents not receiving sufficient information from family physicians, and lack of awareness of the dangers of vaccine-preventable diseases. Because of growing anti-vaccine propaganda, vaccine coverage is lower in cities (82% for DTP3) than in rural areas (93%). There are also issues with accurate reporting of coverage data due to use of inconsistent calculation techniques for the number of surviving infants.

The dropout and wastage rates are in accordance with the UNICEF and WHO-suggested targets (drop-out rates for DTP have even been reduced slightly from 4% in 2014 to 1% in 2015).

Table 1. Reported Vaccination Coverage, 2010-2014.

Vaccine/coverage	2015 (%)	2014 (%)	2013 (%)	2012 (%)	2011 (%)	2010 (%)
BCG	97	97	96	99	98	95
HepB (birth dose)	96	96	95	99	99	94
DTP1 (pentavalent 1)	88	94	96	97	96	98
DTP3 (pentavalent 3)	87	90	90	92	93	94
Polio3	88	92	92	92	96	96
MCV2	90	93	94	95	96	97
RotaC	62	69	65	21	-	-
PCV3	71	28	1	-		

Source: WHO-UNICEF estimates

Vaccine coverage is particularly low in the Transnistria region (45% for DTP3, 47% for polio).

During 2015, no outbreaks were detected, but the country continued to have cases of mumps and pertussis. Moldova did not have any confirmed measles cases since 2013, despite outbreaks in other EURO countries and relatively low (below 90%) coverage in neighboring countries.

Polio-free status has been sustained, but the risk of polio transmission is high, considering proximity of Romania and Ukraine, where a polio outbreak was registered in 2015.

Table 2. Reported Vaccine-preventable Diseases

	2015	2014	2013	2012	2011	2000	1990
Diphteria	0	0	0	0	0	10	6
Measles	0	0	27	11	0	687	3'242
Mumps	70	51	60	131	143	1'942	-
Pertussis	50	188	115	92	102	169	266
Polio	0	0	0	0	0	0	-
Rubella	0	0	0	3	0	2'803	0
Tetanus (neonatal)	0	0	0	0	0	0	-
Tetanus (total)	0	0	0	0	0	1	0

Source: WHO

The country experiences a 3-months stock-out of BCG vaccine in 2015, leading to interruption of vaccination services (JRF 2015 data). Only 36% of the cold chain equipment is equipped with electronic continuous temperature monitoring systems.

New introductions:

Moldova has not introduced any new vaccines since the last Joint Appraisal in 2015. IPV introduction, originally planned for October 2015, was delayed to Q4 of 2017 due to global IPV supply issues. Estimated need for IPV in Moldova in terms of doses for 2017 is 60,000 doses (and twice this quantity if Moldova needs to vaccinate children who would not have received any tOPV in 2016). Moldova is not considering an option of administering split doses of IPV due to major regulatory challenges. It is, however, open to a switch in presentation (from a current 1-dose to 5-dose), if supply of 5-dose vials is available sooner. According to the most recent information from UNICEF Supply Division, situation with 1 and 10-dose vials is stabilized, but supply of 5-dose vials continues to present challenges.

Moldova also expressed concerns with the bOPV presentation available to the country, with a very high wastage of the vaccine due to the 20-dose presentation (the presentation was just recently changed to 10-dose, but wastage remains high in this country with a small birth cohort and many health centers that serve only a few children).

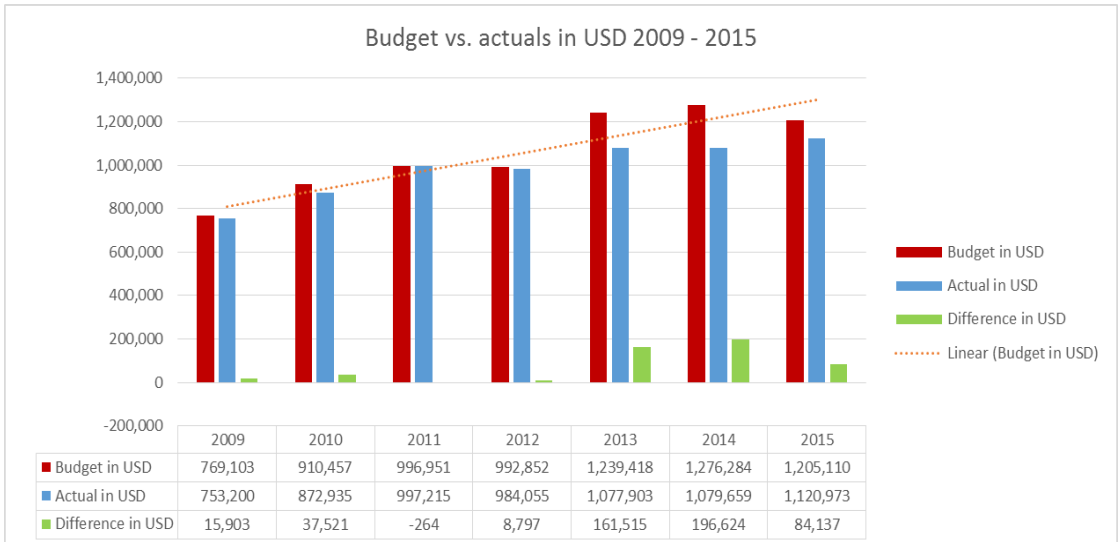
Immunisation financing:

Besides Gavi support, Moldova's health care sector has benefitted from funding provided by other international donor organisations, such as the World Bank and the Global Fund. However, external support to Moldova is gradually phasing out, with Gavi and Global Fund assistance ceasing in 2017 following the country's transition to self-financing. The World Bank support to the health sector will continue through 2019 via the *Health Transformation Operation,* the objective of which is objective is to reduce non-communicable diseases and improve efficiency through the rationalization of hospitals and incentives for health workers (total budget of US$ 30.8 million)

Gavi remains the only source of external funding for Moldova's immunization program, but Gavi support will cease in 2017 following the country's transition to self-financing. Moldova has consistently complied with its co-financing obligations and has never defaulted on its co-payments despite a challenging economic situation. 2016 co-financing obligations have not yet been satisfied, but are scheduled to be transferred to UNICEF in August-September 2016.

The Government is committed to ensuring equal access to quality health care for its citizens and spends roughly 17% of its annual budget on health (World Bank, 2016). The Government of Moldova currently fully covers all programme antigens with the exception of GAVI co-financed vaccines. There was a sustainable gradual increase of the government's financial commitment toward the NIP until 2014, when severe economic and financial crisis in the country led to a large depreciation of local currency and a major drop in foreign lending.

Table 3. Government expenditure on health and immunization



	2009	2010	2011	2012	2013	2014	2015
Budget in USD	769,103	910,457	996,951	992,852	1,239,418	1,276,284	1,205,110
Actual in USD	753,200	872,935	997,215	984,055	1,077,903	1,079,659	1,120,973
Difference in USD	15,903	37,521	-264	8,797	161,515	196,624	84,137

Source: Ministry of Health

	2015	2014	2013	2012	2011	2010
Amount of government funds spent on vaccines (USD)	1,032,660	1,806,957	940,746	967,891	940,577	616,364
Total expenditure (from all sources) on vaccines used in routine immunization	2,228,980	2,748,777	1,512,134	1,809,261		1,062,365
Percentage of total expenditure on vaccines financed by government funds	46%	66%	62%	54%		58%
Amount of government funds are spent on routine immunization (USD)	1,167,810	1,945,995	2,174,037			703,875
Total expenditure (from all sources) on routine immunization	2,596,170	2,887,815	9,126,146			1,216,447
Percentage of total expenditure on routine immunization financed by government funds	45%	67%	24%			58%

Source: JRF 2015

While immunization budget has been secured for the foreseeable future and the government has committed to continue financing vaccines that are part of the country's immunization schedule, there is a risk that funds may be diverted within the Ministry of Health budget to fund other health sector needs, as there is no earmarking of budget specifically for immunization.

This risk is particularly acute given the ongoing reforms at public health care level, with the recent decision on increase of salaries for medical workers (family doctors, young doctors and personnel of the primary health care facilities). These reforms are aiming to draw more young health professionals to the health system, which will also benefit the EPI Program. At the same time, however, the reform will lead to a reduction of the number of epidemiologists and closure of some public health centers.

Draft National Immunization Plan covering the period of 2016-2020 has been delivered to the Ministry of Health in September 2015, but is still waiting to be endorsed by the NITAG, MoH collegium and the line ministries. It includes a detailed budget for the NIP operations until 2020 (with the exception of provisions for HPV). Immunization Program is not the only health program the budget for which had not yet been validated by the government – state funding for the national TB, HIV, and cancer programs has also not yet been confirmed.

Status of implementation of previous HLRP recommendations:

Key recommended actions in 2015 Joint Appraisal were the following:

1. Maintain immunization as a high-level political priority
2. Secure sufficient financial resources for the NIP, notably through expanding resource mobilization efforts
3. Identify alternative vaccine procurement mechanisms to ensure efficiency and sustainability of vaccine procurement

4. Strengthen the efficiency of the vaccine procurement system
5. Further expand advocacy efforts and continuing to educate medical workers on immunization benefits and safety and other key immunization-related issues
6. Implement a comprehensive behavior change communication strategy to improve public trust and create demand
7. Address challenges of low coverage of routine vaccines and potential (re)introduction of new vaccines in the Transnistria region
8. Introduce measures for attracting and retaining health care professionals working in primary care and immunization
9. Further improve cold chain and vaccine management, notably with respect to temperature monitoring, use of pre-qualified equipment, and wider use of computerized data management systems.

The country has started addressing some of these recommendations. Programme staff has been trained on resource mobilization and vaccine safety communications at WHO Regional meetings, the country switched to UNICEF procurement of all traditional vaccines, a decision on salary increase of primary health care workers was taken to attract and retain health personnel, MTEF 2015-2017 allocated larger funding for immunization, Constitutional Court re-enforced the ruling of mandatory vaccination of pre- and school children, and vaccine contraindication workshop was held for the country's medical workers. A detailed summary of progress on each of these recommendations can be found in Section 4 of this report.

The country will continue addressing these recommendations with the support of the Transition Action Plan, the implementation of which began in 2015 and is scheduled to end in June 2017. However, the duration and amount of Transition support is likely to be insufficient to allow the country to fully implement 2015 recommendations, since a longer-term comprehensive assistance would be required for this, especially with respect to improving public trust and creating demand for vaccines, addressing challenges of declining coverage of routine vaccines, and further improving cold chain and vaccine management. There is a risk that in the absence of external technical support, Moldova will not have sufficient capacity and resources to address these recommendations.

Status of strengthening surveillance systems (for AEFI and disease surveillance)

The Republic of Moldova was the first low- to middle-income country in the WHO European Region to introduce rotavirus vaccine; rotavirus vaccination (RV1) was added to the NIP in July 2012. Sentinel surveillance for rotavirus gastroenteritis is conducted in 2 hospitals in Chisinau. One hospital primarily admits children 1-5 years of age and has conducted consistent surveillance since September 2009; the other hospital admits infants aged <1 year and was added to the surveillance system in January 2012. Prior to vaccine introduction, the percentage of hospital admissions positive for rotavirus among children aged <5 years was 45%.

The ongoing implementation of sentinel surveillance for rotavirus gastroenteritis provided the opportunity to assess the impact that rotavirus vaccine introduction had on the disease burden and to estimate the effectiveness of the vaccine in country. A paper entitled "Impact of rotavirus vaccine introduction and vaccine effectiveness in the Republic of Moldova" describing the finding was published in "Clinical Infectious Diseases" journal in 2016. Rotavirus-associated hospitalizations decreased following vaccine introduction. In the first and second year after rotavirus vaccine introduction, the percentage of hospital admissions positive for rotavirus among those aged <5 years fell from 45% in the period before vaccine introduction to 25% (RR, 0.64 [95% CI, .56-.74]) and 14% (RR, .33 [95% CI, .22-.52]), respectively. Decreases were greatest among vaccinated cohorts (i.e., children <1 year of age in the first year and <2 years of age in the second year following vaccine implementation. Significant reductions among cohorts too old to be vaccinated suggest indirect benefits.

These results occurred with modest vaccine coverage (i.e., only reaching 55% of in children aged <1 year), there is potential for further reductions in disease. Vaccine effectiveness for a full 2-dose course against moderate to severe rotavirus hospitalization was 84% (95% CI, 64%-93%) compared with 79% (95% CI, 62%-88%) against all rotavirus hospitalizations. Continued surveillance for rotavirus gastroenteritis is recommended to monitor vaccine uptake and to assess the medium- and long-term benefits of rotavirus vaccination (http://www.ncbi.nlm.nih.gov/pubmed/27059348).

Moldova has also provided peer training on rotavirus sentinel surveillance for hospital and EPI staff in Azerbaijan.

Sustainability of surveillance activities after the end of Gavi support is uncertain, as they are heavily dependent on technical assistance from Gavi Alliance partners. It is important for the country to continue this activity. The early impact data clearly argue for sustained use of rotavirus vaccine and further benefits are possible with

improved rotavirus vaccine coverage. As noted in the paper, it is recommended to continue surveillance for rotavirus gastroenteritis to assess the medium- and long-term benefits of rotavirus vaccination. Stopping surveillance activities would deprive the EPI program of the continued impact and benefits of rotavirus vaccine for not only Republic of Moldova but also for other countries in the region.

A total of 116 AEFI cases was reported in Moldova in 2015 (consistent with previous years).

Key implementation bottlenecks and corrective actions

Despite the continuous strong performance of Moldova's immunization program, a number of challenges and implementation bottlenecks still remain, notably:

- Uncertainty with respect to the continued political commitment to immunization due to the challenging economic and financial situation in the country
- Declining health and immunization budget makes it challenging to address all EPI needs, especially in view of potential introduction of HPV vaccine in 2017
- Existence of vaccine hesitancy and anti-vaccine sentiment among parents and medical personnel
- Insufficient knowledge among health care providers, leading to false contraindications
- Lack of adequate advocacy and communication efforts to promote immunization
- Unsustainable procurement mechanisms (UNICEF SD procurement not guaranteed long-term; lack of access to global vaccine market; challenges with local tenders in the past that are likely to continue if the country goes back to local procurement)
- Insufficient capacity of the NITAG; the group needs to be strengthened
- AEFI systems need to be strengthened
- Overworked family doctors lacking time to do all the work required of them and thus not treating immunization as a priority
- Some gaps in cold chain: outdated fridges, replacement needed in more than 250 health centers, renewal of equipment required.
- EPI Program Secretariat requires assistance for capacity strengthening

3.1.2. NVS future plans and priorities

As of 2017, Moldova will transition to full self-financing of its traditional and new vaccines, with Gavi support continuing only for IPV (through 2018) and HPV demonstration programme (for 24 months after introduction in 2017). The key plans and priorities for the country, as communicated by country representatives, are thus the following:

- Ensuring smooth transition out of Gavi support;
- Successfully integrating new vaccines (HPV and IPV) into the national immunization calendar;
- Securing sufficient government funding for immunization program;
- Continuing to address vaccine hesitancy and knowledge gaps among medical personnel, notably through continued health worker trainings to properly identify contraindications and reduce false contraindications;
- Promoting vaccine demand through behavior change communication strategies;
- Pursuing sentinel surveillance for rotavirus, including continuation of the case-control study for vaccine effectiveness to assess the durability of protection in older children;
- Ensuring availability of functioning cold chain across the country (notably freezers, LogTags, thermo-containers);
- Social media monitoring to understand behavior attitudes of population, and provide rapid response to parents' needs;
- Adaptation of electronic immunization registries tested in other EURO countries to Moldova's context and their acceptance and use by health practitioners across the country
- Capacity strengthening of National Immunization Technical Advisory Group and strengthening of the ICC
- Increased resource mobilization capacity of the EPI, especially in view of the end of Gavi support
- Monitoring the situation in Transnistria, where the coverage is much lower than in Moldova proper.

Successful implementation of the above-listed priorities and needs is, as explained above, uncertain due to lack of sufficient resources and capacity at the country level and the end of Gavi support at the end of 2016.

New introductions and switches:

Moldova has expressed interest in applying for demonstration programme for HPV vaccine. The country is currently working on its application, to be submitted in September 2016. Introduction is planned for September 2017. As HPV is very different from other vaccines administered in country (more expensive, different age group, potential controversy over possible side effects fueled by social media, examples of communication crises and failed uptake in other EURO countries, etc.), Moldova will require significant technical support to ensure successful introduction and rollout of the vaccine. TA will be specifically required for cost-effectiveness analyses, Knowledge, Attitudes, Practices and Beliefs (KAPB) study, and for communication materials and strategies, including building preparedness for vaccine safety events.

However, as Moldova will transition out of Gavi support at the end of 2016, no additional technical support (other than ongoing transition grant) is foreseen for Moldova for 2017 despite an extreme need. This issue has been brought to the attention of Gavi Secretariat, and a possibility of exceptionally providing Moldova with additional technical support specifically for activities linked to HPV introduction is being reviewed.

Achievement of set targets:

Declining vaccine coverage in Moldova since 2009 makes the 2017-2018 immunization targets unrealistic. The country's goal is to maintain coverage at least at the present level, but a more realistic scenario is that coverage continues falling by several percentage points per year. In order to prevent coverage results from declining further, significant advocacy and communication campaigns are required, together with intensive training of medical workers and demand promotion. The country, however, does not have capacity and resources to conduct these activities without external support.

Moldova's EPI program is optimistic about succeeding in reaching their wastage and dropout targets in the coming years.

Risks to future implementation and mitigating actions

Withdrawal of Gavi support from Moldova, especially technical support from Alliance partners, presents a major risk to successful operations of Moldova's immunization programme, especially with respect to areas of communication and advocacy, disease surveillance, and demand promotion that are currently heavily dependent of donor support.

Another significant risk is the return of the country to self-procurement of vaccines and vaccine supplies. UNICEF SD procurement is not guaranteed long-term and may not be retained by the government after the country's transition from Gavi support due to the challenges in local legislation, which requires all procurement to go through national tenders. Due to Moldova's small market and limited negotiating power, the county lacks access to global vaccine market and has seen several unsuccessful vaccine tenders in recent years before switching to UNICEF procurement in 2016.

Future need for technical support:

- Support for introduction of HPV vaccine (communication, advocacy, cost-effectiveness, KAPB study, building preparedness for vaccine safety events, demand generation, medical staff training, etc.)
- Further support for disease surveillance
- Support for data quality assessment to identify data-related gaps and needs
- Impact study for PCV vaccine
- Strengthening of temperature monitoring
- Trainings for medical staff across the country on vaccine contraindications and vaccine safety
- Continuing to address vaccine hesitancy and knowledge gaps among medical personnel
- Strengthening the country's self-procurement capacity in view of transitioning of Gavi support and potential return to self-procurement of some vaccines

3.2. Health systems strengthening (HSS) support

Not applicable – Moldova has not received any HSS support from Gavi.

3.3. Transition planning

Transition Assessment in Moldova was conducted in 2014, and Transition Action Plan, covering the period of 2014-2017, was finalized by Gavi Alliance Partners and shared with the country for final validation and endorsement in early 2015. Transition Grants with WHO and UNICEF were signed respectively in May and August 2015, with disbursements of funds following shortly thereafter.

Both Transition Grants were meant to provide activities during two and a half years (mid-2014 to end of 2016), but because of the delays in signing the grants, disbursing funding and allocating funds to WHO and UNICEF country offices, activities did not start until late 2015. Only a small number of planned activities were carried out so far.

Transition grants, in the total amount of US$ 523,595 (US$ 488,500 excluding the PSC), target the following strategic areas: vaccine procurement, immunization financing, vaccine regulations, strategic guidance the Programme and Programme performance.

Since the Transition Action Plan was developed in 2014, the country context had significantly changed due to the recent economic crisis and major political changes. In addition, the country switched to UNICEF procurement of all traditional vaccines in early 2016 and became eligible for exceptional catalytic support for HPV vaccine, which altered the need for some of the TA related to the areas of procurement and evidence-based decision-making.

To address the need for a revision of the transition activities funded through the grant, a joint WHO EURO-Gavi visit was organized to the country in May 2016, during which the approved activities were redefined and separation of roles and responsibilities between UNICEF and WHO clarified.

Currently, the transition grants are scheduled to end in December 2016. However, due to the delay in starting implementation, the country expressed a request to extend the duration of the grant until 30 June 2017 with no additional allocation of funding. A formal request for a 6-months no-cost extension is expected to be received from UNICEF and WHO Country offices and the EPI program in August 2016.

3.4. Financial management of all cash grants

In 2015, Moldova received from Gavi a US$ 100,000 IPV vaccine introduction grant. In addition, the country had US$ 44,255 of remaining cash balance from the PCV VIG disbursed in 2013.

According to the 2015 financial statements, funds from the remaining PCV VIG and new IPV VIG were spent as follows:

Table 4: 2015 expenditure of Gavi funds remaining in country

	Budget in MDL	Budget in USD	Actual in MDL	Actual in USD
Administrative expenditures (including stationary and office supplies)	635 000,00	34 139,46	216 932,65	11 662,93
Postal and communication expenses	0	0	420,00	22,58
Repairs of equipment and office space	100 000,00	5 376,29	119 392,00	6 418,86
Maintenance of equipment and office space	31 300,00	1 682,78	2 027,09	108,98
Publishing expenditures	300 000,00	16 128,88	170 930,80	9 189,74
Other	60 000,00	3 225,73	0	0
Bank fees	0	0	9 300,09	500,00
Per diems	10 000,00	537,63	0	0
Procurement of equipment (refrigerated truck, cold chain, office equipment)	1 000 000,00	64 617,16	1 000 000,00	64 617,16
Total for 2015	**2 136 300,00**	**125 707,97**	**1 519 002,63**	**92 520,26**

Cash balance in the beginning of 2016 was US$ 51,734.

No FMA has been conducted in Moldova during the years of Gavi support. There were also no audits of previously disbursed cash grants due to their amounts being below the established threshold.

4. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

The table below presents a list of high-level findings from the 2015 Joint Appraisal.

Prioritised strategic actions from 2015 JA / HLRP process	Current status
1. Maintaining immunization as a high-level political priority	**In progress.** Draft National Immunization Plan covering 2016-2020, including a detailed budget, is waiting to be endorsed by the NITAG, MOH collegium and relevant line ministries. MTEF 2015-2017 shows increased budgets for national health programs, including immunization program.
2. Securing sufficient financial resources for the EPI program, notably through expanding resource mobilization efforts	**In progress.** Country representatives attended WHO Regional Workshop on resource mobilisation in November 2015. In-country work on resource mobilization is scheduled to take place before the end of 2016 with technical support from WHO. National action plan on resource mobilization will be developed with WHO support. National Immunization Plan, cMyP (which is currently being finalized) and the MT Expenditure Framework have specific provisions on resources for immunization. In the current government budgets, allocations for immunisation have been maintained. HPV cost-effectiveness study was conducted in June 2016.
3. Further expanding advocacy efforts and continuing to educate medical workers on immunization benefits and safety and other key immunization-related issues.	**In progress.** Constitutional Court re-enforced the ruling of mandatory vaccination of pre- and school children. Country representatives participated in sub-regional vaccine safety communication workshop, organized in Turkey by WHO. Vaccine contraindication workshop was conducted for country experts. Many relevant national and sub-national activities were conducted during the European Immunization week (2 flash mobs – in central square, mall, MCH Center, press clubs for journalists, public debates at National Clinical Hospital, open doors hours at the central vaccine warehouse) with support from WHO, UNICEF, MoH/NCPH, volunteers, for local public administration (LPA) and local PHC. Vaccine information statements and pamphlets on selected VPIs have been produced.
4. Implementing a comprehensive behavior change communication strategy to improve public trust and create demand	**In progress.** Website for parents was developed (http://suntparinte.md/). UNICEF provided support with Draft Strategy and Action Plan on Parenting, including immunizations. Significant work was conducted on social media (Facebook, Twitter) with support from UNICEF, WHO, NCPH, MOH. Video-spots have been developed and disseminated, including in Transnistria (UNICEF). Capacity building (interpersonal communication, crisis communication) activities have been carried out with UNICEF support (EU/SDC-funded). C4D Strategy development will be launched before the end of 2016 by UNICEF with Transition grant funding, based on updated communication strategy.
5. Addressing challenges of low coverage of routine vaccines and potential (re)introduction of new vaccines in the Transnistria region	**In progress.** Capacity building for health workers (NCPH, district PHC) has been carried out. During European Immunization Week, information materials were disseminated, awareness raising activities were conducted, workshops for local public administration (LPA) were conducted locally with NCPH support; Monthly data on immunization coverage is being disseminated (NCPH) with feedback to district PHC. Vaccine Investment Strategy was drafted (WHO). VaccinApp will be upgraded (WHO). However, new vaccines remain unaffordable for Transnistria region. Bilateral meetings continue with Transnistria authorities, including on immunization.
6. Introducing measures for attracting and retaining health care professionals working in primary care and immunization	**Completed & ongoing.** Incentives for young heath professionals have been introduced by the government (free housing, tax exemption for running costs, one-off settling fee). Strategy on HR for health was approved in April 2016 (WHO support, EU-funded). Public Employee Salary Strategy (avg. 20% increase of salary) is effective July 2016 (NHIC).

7. Strengthening the efficiency of the vaccine procurement system	**Completed.** Assessment of vaccine procurement system took place. Action plan on improving the efficiency of vaccine procurement system was drafted in 2016 (addressing legal and procurement system related barriers). Both activities were implemented by UNICEF with support from the Transition grant.
8. Further improving cold chain and vaccine management, notably with respect to temperature monitoring, use of pre-qualified equipment, and wider use of computerized data management systems	**Completed & ongoing.** • Annual assessments of cold chain (NCPH, district PHC) • Vaccine safety workshop (WHO) • LogTags for district PHC, thermo-containers 1,200 facilities, freezers (NCPH with GAVI IPV funding) • Cold chain temperature monitoring (NCPH, district PHC) • Auto-refrigerator purchased • EVM assessment follow-up (MoH) • EVM training in Transnistria (UNICEF with SDC-funding) • SPREADSHEETS vaccine coverage and ACCESS stocks database software
9. Identification of different vaccine procurement mechanisms based on vaccine market changing	**Completed.** Country representatives participated in Vaccine Procurement Practitioners Exchange Forum and Vaccine Industry Consultations (UNICEF SD). Preparation (2015) and procurement (2016) of vaccines through UNICEF SD, including extensive consultations and visits to Supply Division. 4 day workshop on vaccine procurement mechanisms in European region (2016, UNICEF). Public Procurement Law allows health facilities to use single source procurement up to $5k (2016).

5. PRIORITISED COUNTRY NEEDS

Even though Moldova will transition out of Gavi support at the end of 2016, the country still presented its priority needs for the coming years during the Joint Appraisal, in order to demonstrate the key issues that will require additional investments and efforts. Most of these priorities cannot be successfully addressed without technical support from Alliance partners. Gavi Alliance is reviewing a possibility to exceptionally provide dedicated technical assistance to Moldova in 2017 for HPV introduction, despite formal end of Gavi support. For other priority actions requiring technical assistance, the country has a possibility to reprogram ongoing Transition grants and seek additional assistance from other sources through resource mobilization efforts.

Prioritised needs and strategic actions	**Associated timeline for completing the actions**	**Does this require technical assistance?*** *(yes/no)* If yes, indicate type of assistance needed
Support for introduction of HPV vaccine (communication, advocacy, cost-effectiveness, KAPB study, building preparedness for vaccine safety events, demand generation, medical staff training, etc.)	**2017**	**Yes – WHO/UNICEF Source - TBC**
Maintaining immunization as a priority and securing sufficient government funding for immunization program	**2016 onwards**	**Yes (resource mobilization support)**
Continuing to address vaccine hesitancy and knowledge gaps among medical personnel, notably through continued health worker trainings to properly identify contraindications and reduce false contraindications;	**2016 onwards**	**Yes (advocacy, communications, trainings)**
Promoting vaccine demand through behavior change communication strategies	**2016 onwards**	**Yes (advocacy, communications, trainings)**

Pursuing sentinel surveillance for rotavirus disease, including continuation of the case-control study for vaccine effectiveness to assess the durability of protection in older children	**2016 onwards**	**Yes (disease surveillance)**
Ensuring availability of functioning cold chain across the country (notably freezers, LogTags, thermocontainers)	**2016 onwards**	**Yes (cold chain support)**
Social media monitoring to understand behavior attitudes of population, and provide rapid response to parents' needs	**2016 onwards**	**Yes (advocacy, communications, trainings)**
Adaptation of electronic immunization registries tested in other EURO countries to Moldova's context and their acceptance and use by health practitioners across the country	**2016 onwards**	**Yes (using lessons learned from other EURO countries)**
Capacity strengthening of National Immunization Technical Advisory Group and strengthening of the ICC	**2016 onwards**	**Yes (ICC and NITAG support)**
Increased resource mobilization capacity of the EPI, especially in view of the end of Gavi support	**2016 onwards**	**Yes (resource mobilization)**
Monitoring the situation in Transnistria, where the coverage is much lower than in Moldova proper.		**Yes (cold chain, advocacy, trainings, communications in Transnistria)**

6. ENDORSEMENT BY ICC AND ADDITIONAL COMMENTS

Brief description of how the joint appraisal was endorsed by the relevant national coordination mechanism	ICC validation is not required for JA Update. EPI Manager reviewed the Joint Appraisal update and provided comments, which have been incorporated into the final version of the report
Issues raised during debrief of joint appraisal findings to national coordination mechanism	N/A
Any additional comments from: • **Ministry of Health** • **Gavi Alliance partners** • **Gavi Senior Country Manager**	N/A

7. ANNEXES

Annex A. Description of joint appraisal process

In 2016, Moldova conducted a Joint Appraisal Update instead of a full Joint Appraisal exercise. The Joint Appraisal update was carried out through a Regional Meeting organized by WHO EURO in Copenhagen on July 5-6, with four EURO countries in presence (Armenia, Georgia, Moldova and Azerbaijan).

Participants from Moldova included:
- Dr. Anatol Melnic, EPI Manager
- Dr. Luminita Avornic, Deputy Head, Department of Primary Care, Emergency and Community, MoH;
- Andrei Cazacu, Head, Department of External Relations and European Integration, MoH
- Igor Sajin, Consultant, Department of Budget, Finance and Insurance, MoH
- Dumitru Saghin, Deputy Director, Medicines and Medical Devices Agency
- Angela Capcelea, UNICEF CO
- Silviu Ciobanu, WHO CO

Representatives from UNICEF Supply Division, UNICEF Regional Office, and technical officers from WHO EURO also participated in the Joint Appraisal update discussions. Countries worked in groups to discuss various areas to be covered in the Joint Appraisal Update report, notably 2015 performance against immunization targets, progress on signature and implementation of the transition plans, progress on completing 2015 HLRP recommendations and addressing 2015 JA findings, and key priorities and TA needs for 2017.

Annex B: Changes to transition plan

Changes proposed	Rationale for changes	Related cost (US$)	Source of funding for amended activities	Implementation agency	Expected result
To support current country needs in immunization financing area of work the VfM activities were reprogrammed to build country capacity on resource mobilization and introduction of HPV: i) develop resource mobilization action plan, ii) develop advocacy material for resources mobilization, iii) conduct resource mobilization activity iv) train national experts on use of cost effectiveness (CE) tool and v) conduct further in-country study on cost effectiveness of HPV introduction and develop advocacy materials.	Moldova will be self-financing country in 2017 thus the country's priority is to build resource mobilization capacities and capacity to introduce HPV.	53,500	Transition grant	WHO	The resource mobilization action plan and advocacy material for resources mobilization are developed; resource mobilization activity are carried out; national experts are trained; in-country study on CE of HPV is conducted.
Develop road map and strategic plan for NRA for next 5 years.	Strengthen national regulatory capacities in self-financing transition phase.	10,000	Transition grant	WHO	Approved road map and strategic plan developed.
Train NRA staff on market authorization (MA) and pharmacovigilance (Pv).	The activity has already existed in the transition plan. The budget was increased from 3,000 to 10,000 USD as MA component was included in the training.	7,000	Transition grant	WHO	Staff trained on market authorization and pharmacovigilance.
Hands on training through visit well-functioning NRA.	The activity has already existed in the transition plan. The budget was increased from 13,000 to 30,000 USD.	17,000	Transition grant	WHO	Peer exchange conducted.
Introduce collaborative agreement for registration of prequalified vaccine (Pq).	Strengthen specific national regulatory capacities.	10,000	Transition grant	WHO	Registration of Pq facilitated.
Review and revise AEFI regulation and guidelines and train relevant staff on revised AEFI procedures.	The activity has already existed in the transition plan. Due to	30,000	Transition grant	WHO	AEFI regulation and guidelines reviewed

	unavailability of other funding this activity was prioritized.				and key staff trained.
Participate in the ETAGE and regional meetings immunization policies and strategies.	The activity has already existed in the transition plan. Due to unavailability of other funding this activity was prioritized.	10,000	Transition grant	WHO	NITAG members updated on immunization policies and strategies.
Invite resource persons (including WHO staff) to NITAG meetings and work.	The activity has already existed in the transition plan. The budget was increased from 6,000 to 10,000 USD.	4,000	Transition grant	WHO	Specific guidance provided to NITAG members.
Assess NITAG performance against performance indicators.	Assess current NRA capacities.	4,000	Transition grant	WHO	NITAG performance assessed.
Conduct mid-level management training.	The activity has already existed in the transition plan. The budget was increased from 55,000 to 75,000 USD.	20,000	Transition grant	WHO	District level staff trained.
Upgrade computerized monitoring tool and expand its use.	The activity has already existed in the transition plan. The budget was increased from 7,000 to 10,000 USD.	3,000	Transition grant	WHO	The tool is upgraded.
Conduct study to assess impact on performance based payment using immunization coverage as indicator and provide policy recommendation.	The activity has already existed in the transition plan. The budget was increased from 13,000 to 15,000 USD.	2,000	Transition grant	WHO	Policy guidance provided to improve performance payment system.
Develop communication materials, including for specific target groups.	The activity has already existed in the transition plan. The budget was increased from 10,000 to 15,000 USD.	5,000	Transition grant	UNICEF	Develop communication materials, including for specific target groups.
Develop a Communication for development Strategy on vaccine promotion; If required, conduct assessment to identify underline causes for not being vaccinated, refusals and hesitancies.	The activity has already existed in the transition plan. The budget was increased from 20,000 to 25,000 USD.	5,000	Transition grant	UNICEF	Develop a Communication for development Strategy on vaccine promotion; If required, conduct assessment to identify underline causes for not being vaccinated, refusals and hesitancies.

Annex C: Progress on implementation of technical support by Alliance partners

WHO:

1. HPV:

   a. WHO Regional workshop on Vaccination against Human papillomavirus (HPV): Decision making and preparing for introduction for NIP Managers, Chairs of National Immunization Technical Advisory Groups (NITAGs), and national experts in cervical cancer screening from Armenia, Azerbaijan, Belarus, Georgia, Moldova, and Uzbekistan was held in Copenhagen, Denmark on 16-17 March 2016
   b. Moldova's application preparation planned for July - early August 2016
2. cMYP: programmatic and costing parts to be finalized before September 2016
3. Resource mobilization: regional training conducted in November 2015; in-country process ready to take off, as soon as the costing and financing components of the cMYP are done (resource mobilization plans will be based on identified funding gaps).
4. Surveillance: rotavirus surveillance ongoing. The impact of rotavirus vaccine introduction and vaccine effectiveness in the Republic of Moldova were assessed; results were published in May 2016.
5. Support to the NITAG

UNICEF:

1. Capacity building health workers and health managers
2. Revision of in-service curriculum
3. Interpersonal communication training for health workers
4. Crisis communication for media
5. Activities related to strengthening of procurement systems (assessment has been conducted; with National Center of public health, journalists could visit warehouse and see how safety of vaccines is managed)
6. Communications strategy is under development – the country is in the process of contracting an institution to develop comprehensive strategy. Communication messages will be developed based on that.
7. Communications training in Transnistria conducted.

Sabin:

Analysis of immunization budget process, financing, and legislation - done in 2015.

UNICEF Supply Division:

Support to the country with switching to UNICEF SD procurement for all eligible vaccines (new and traditional)