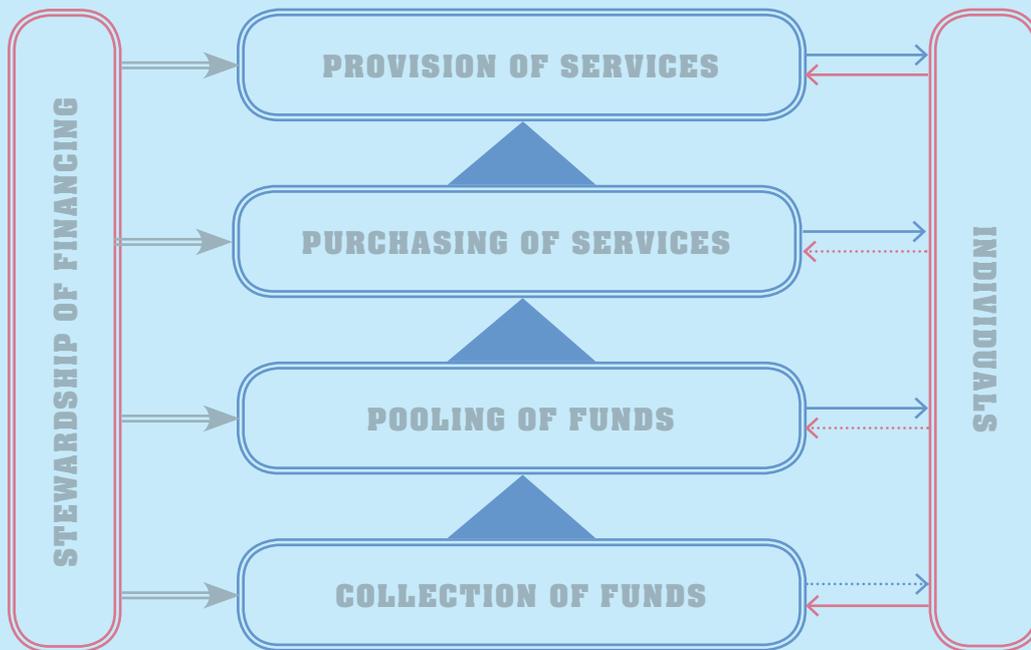




**World Health  
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REGIONAL OFFICE FOR **Europe**



## **A REVIEW OF HEALTH FINANCING REFORMS IN THE REPUBLIC OF**

# **MOLDOVA**





**World Health  
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REGIONAL OFFICE FOR **Europe**

# **A REVIEW OF HEALTH FINANCING REFORMS IN THE REPUBLIC OF MOLDOVA**

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**BY: SERGEY SHISHKIN AND MATTHEW JOWETT**

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## ABSTRACT

In the context of global efforts to move towards universal coverage in health systems, this report reviews health financing reforms in the Republic of Moldova and looks in particular at how the population's access to health services has been affected. In 2004, as has been widely documented elsewhere, wholesale reforms were made to the way in which government funds were used to fund health services, shifting the system overnight from a highly fragmented and inflexible one, to one in which funds for the health sector were pooled nationally, allowing improved risk-sharing as a result of greater flexibility to allocate funds in line with health needs. A new source of funding in the form of a payroll tax for health was also introduced directly leading to a growth in total levels of government health spending. A second phase of reforms starting in 2009 addressed the issue of gaps in population coverage under mandatory health insurance, with legislative measures taken to ensure that all citizens of Moldova had access to primary health care, and to ensure that the poor receive subsidized health insurance. Fiscal constraints have limited the full implementation of these reforms however.

Moldova has shown that it is prepared to tackle difficult policy issues head on and has articulated clear goals for the sector. In particular, the Roadmap "Accelerating Reforms: addressing the needs of the health area through investment policies" approved on 1 March 2012, lays a clear agenda for the next phase or priority reforms focusing on principally on service delivery reorganization but also on health financing. This is the correct focus given that progress on a number of priority indicators such as equity in access to services and financial protection has been limited in recent years. This report summarizes the main impact of health financing reforms to date and agrees with the Roadmap about the major challenges for the coming decade, in particular the need to address inefficiencies in service delivery, but also to ensure that the close link between guaranteed benefits and available funding is maintained in future policy decisions.

### Keywords

HEALTH ECONOMICS  
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INSURANCE, HEALTH  
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EVALUATION STUDIES  
HEALTH SERVICES ACCESSIBILITY  
HEALTH POLICY  
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## **ABBREVIATIONS**

CIS	Commonwealth of Independent States
CNAM	Compania Nationala de Asigurari in Medicina (National Health Insurance Company)
DRG	Diagnostic Related Group
EU	European Union
GDP	Gross Domestic Product
IMF	International Monetary Fund
MHI	Mandatory Health Insurance
MOH	Ministry of Health
MTEF	Medium Term Expenditure Framework
NBS	National Bureau of Statistics
OOP	Out-of-pocket payment
PHC	Primary Health Care

## **DATA SOURCES**

Much of the analysis in this report is based on data provided by the National Bureau of Statistics (NBS), the National Health Insurance Company (CNAM), and Ministry of Health (MoH). The authors requested a range of data, and these were officially provided in return. NBS data is taken almost entirely from the nationally representative National Household Survey for the fourth quarters of 2008, 2009, and 2010. The survey has a sample size of 2442 households and is thus representative of the Moldovan population as a whole. CNAM data is taken from internal databases, as is data provided by the MoH. In the text which follows, this information is sourced as “Based on NBS data”, “Based on MoH data”, and “Based on CNAM data”. The report is based in the latest data available in March 2012.

## **EXECUTIVE SUMMARY**

Since independence, the Republic of Moldova has made significant efforts to improve the performance of its health system through reforms to the way public finances are used, most notably a series of large scale structural reforms introduced in 2004 that have been widely acknowledged and documented in the international health policy arena. As a result, risk-sharing within the health system improved, resources were allocated more equitably, government health spending became more closely aligned with benefit guarantees, and the priority given to the health sector within government increased substantially. However these measures, which largely tackled the underlying architecture of the health financing system, have yet to translate into significantly improved performance at the system level on key indicators such as financial protection; in addition, significant inequities in access remain.

One of the effects of the 2004 reforms was that by linking entitlements closely with financial contributions under the new national mandatory health insurance (MHI) scheme, around one quarter of the population had limited access to health services beyond a number of universal programmes. In 2009 and 2010, important legislation was introduced to address this issue stating that all citizens, irrespective of their insurance status, were entitled to the full package of primary health care (PHC) services. Whilst the full impact of this legislation is yet to be seen, the Government has made an important step forward on the road to universal coverage. Making this legislation work effectively, however, remains a challenge. Improvements in the way that the Law On Social Benefits" № 133-XVI (13 June 2008) is implemented will also influence the success of the new legislation.

The subsequent divergence between extended guarantees and available funding, which has since been corrected, highlights the importance of addressing the significant supply-side efficiencies that exist in Moldova, and which are a priority for the current Government given that available public funding for health is likely to be under pressure in the coming years. Furthermore, recent legislation to expand benefits to the uninsured is only part of the story. In order to achieve real progress on key performance indicators further reforms are required, in particular the way in that government pays for health services; a more strategic approach to decisions around what health services are purchased, which facilities they are purchased from etc. is high up the reform agenda. Implementing the National Hospital Masterplan will be critical to minimize the inevitable trade-offs between extending population coverage, the benefit package, and financial protection, and hence to see significant improvements in population health indicators in the future.

A major concern for policy-makers is the high level of catastrophic health spending by households which persists in Moldova, driven by spending on outpatient medicines, in particular for chronic conditions. This is a difficult issue faced by most middle-income countries in the region, and given current fiscal pressures is a policy area where more innovation and learning from international experience is required. Achieving much-needed efficiencies in service delivery, where many health problems that could and should be managed at the primary level are currently being treated in hospitals, could release significant funds and help to tackle this problem.

Moldova has shown that it is a leader when it comes to reforming its health system, being prepared to tackle major challenges head-on. Much has been achieved since the 2004 reforms, with bold decisions in 2009 moving the country another step towards universal coverage, but inevitably much more is needed to tackle the persistent inequities in the sector, improve efficiency, and move the system further forward over the coming decades, and to translate reforms into real improvements in health status and financial protection for all citizens of Moldova.

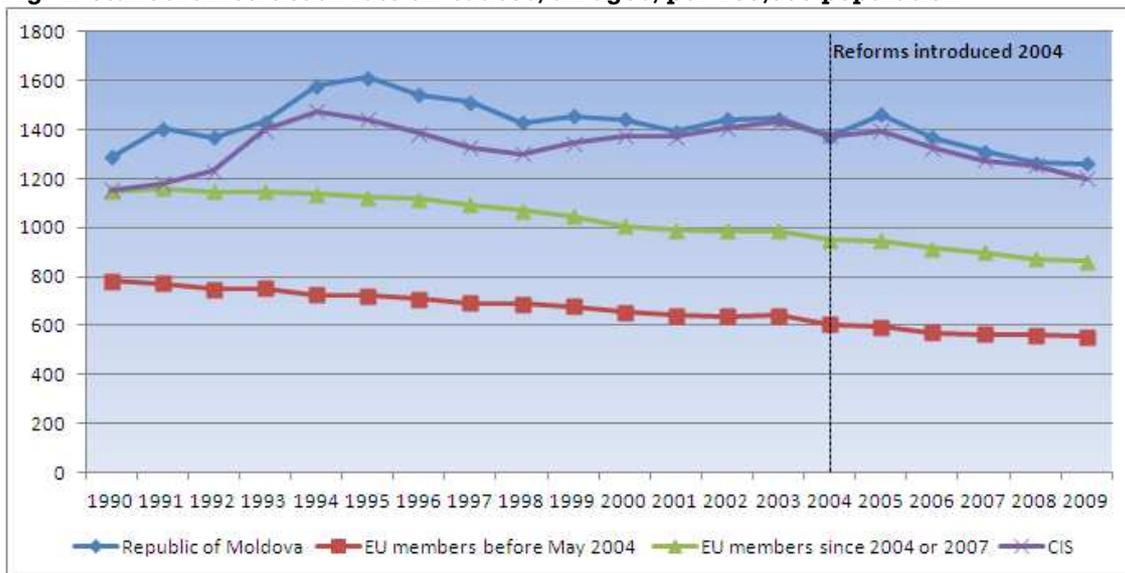
## I. Background

The Republic of Moldova has been widely documented internationally as a reformer in terms of health financing policy for the fundamental changes it made to the Semashko system established prior to independence (1, 2). The introduction of a system of MHI in 2004 was characterized by the introduction of a new payroll tax for health, and the creation of a single national pool of funds managed by the newly created National Health Insurance Company, known as the *Compania Nationala de Asigurari în Medicina*, and hereafter referred to as CNAM.

These reforms to the underlying architecture of government financing addressed a health system in which funding was highly fragmented and inequitable in terms of geographical allocations. Furthermore, the previous system continually fed over-capacity in terms of infrastructure, as well as extensive duplication in service delivery, and provided no incentive for the efficient delivery of health services.

This review reflects on this large-scale reform as well as subsequent reforms, and assesses how the system's performance has progressed against the goals laid out in a number of key policy documents, both national and international (3, 4, 5). Since the introduction of large scale reforms in 2004 there has been a significant fall in the death rate (see Fig. 1), although the extent to which this trend can be attributed to the reforms is debatable, as a similar trend is seen across the European Union (EU) and Commonwealth of Independent States (CIS) countries.

**Fig. 1: Standardized death rate all causes, all ages, per 100,000 population**



Source: WHO European Health for All Database 2011 (6)

Whilst this report reviews the impact of reforms since 2004, it looks particularly closely at the initial effects of two new pieces of legislation introduced in 2009 (see Section 3), which aimed to increase access to health services for the uninsured population. Efforts have been made to capture the benefits resulting from these new policies although further monitoring will be required in the years to come. The policy decisions made in 2009 were, however, bold decisions to further protect the vulnerable at a time of financial crisis, a measure acknowledged in the World Health Report 2010 "Health Systems Financing: the Path to Universal Coverage".

An earlier report (1) provides a detailed impact of the effects of the 2004 reforms in the immediate years which followed, Whilst this report focuses more on the impact of later reforms on population coverage and access to health services, it also includes updates of much of the analysis presented in the earlier report.

## 2. Analysis of changes in the collection, pooling and allocation of government funding for health

### 2.1 Overall public finance situation

Fundamental to WHO's approach to health financing policy is an understanding of a country's fiscal situation and the constraints this sets on government health spending (7). Table 1 presents key macroeconomic indicators for Moldova. In general, public finances have improved considerably since the turbulent years following independence, with inflation brought under control and positive GDP growth from 2000 until 2009 when the country suffered a short but sharp shock as a result of the global financial crisis. GDP in 2009 fell by 6.0% in real terms but bounced back immediately in 2010 increasing by 7.1%. Despite this, total government expenditures increased in real terms by 2.3% in 2009 with external financing playing an important role, but decreased in 2010 in real terms by 3.5%. Growth resumed in 2011 by 0.9%. According to the IMF, GDP growth will decrease in 2012 and again in 2013 to the 5% level (8). Despite this quick recovery in terms of fiscal indicators there has been a longer lasting effect in terms of unemployment; in 2009 the rate of unemployment jumped by 60% with a further 15.8% increase to 7.4% in 2010, falling back to just over 6% in 2011.

**Table 1: Selected macroeconomic indicators 1995-2014\***

Macroeconomic indicators	1995	2000	2005	2009	2010	2011	2012	2013	2014
GDP, mln. Lei	6480	16 020	36 755	60 043	71 849	82 900	93 100	102 100	112 600
GDP growth,% year-on-year		2.10	7.00	-6.0	7.1	6.05	3.5	4.5	5.0
CPI inflation,% year-on-year	30.0	31.2	11.9	0.4	8.1	9.7	6.5	5.0	5.0
Government expenditures, mln. Lei	2883	5420	13 949	27 343	29 326	32 199	35 499	38 533	42 825
Government expenditures to GDP ratio,%	44.5	33.8	38.0	45.2	40.8	38.9	38.1	37.7	38.0
Government expenditure in real terms (2000=100%)*		100	154	206	199	201	204	211	223
Public & publicly guaranteed debt as%GDP				32.4	30.2	28.3	28.7	26.1	23.5
Cash surplus/deficit as%GDP	-6.28 (1997)	-1.49	1.80	-5.0	1.7	-1.1	0.0	0.0	0.0

\* calculations made using annual GDP index-deflators

Sources: WHO National Health Accounts database (9); NBS (10), IMF 2012 (8), World Bank data (11)

Cumulative public debt stood at a moderate 28.3% of GDP at the end of 2011 and is projected to decline in the coming years. Overall, the Republic of Moldova's risk of debt distress is considered to be low (8). Despite this positive fiscal picture, the Government is currently attempting to reduce the role of the state with a view to boosting economic growth. Relative to the size of the overall economy the government budget is currently substantially lower than its level of 45.2% in 2009, and is projected to fall further over the coming years to 38.0%. This is likely to have a negative impact on levels of government health spending in the future and is an important consideration in policy discussions.

## 2.2 Health expenditure trends

Overall, the Republic of Moldova spent 11.7% of GDP on health in 2010, a very high level for the European Region which spends an average of 7.56% of GDP (only the Netherlands and France spend more at 11.9%). This and a range of other health expenditure indicators are summarized in Table 2. This high level reflects the considerable increase in levels of both public and private spending over the past decade, although in absolute terms health spending per capita in Moldova remains one of the lowest in the region.

**Table 2: Total health expenditures in Moldova 2003-2010**

	2003	2004	2005	2006	2007	2008	2009	2010
Total expenditure on health to GDP ratio <sup>a</sup>	6.8	7.8	8.4	9.4	10.3	10.7	11.9	11.7
Total health expenditure, PPP\$ per capita <sup>a</sup>	131	165	198	242	281	318	341	360
Public expenditure on health to GDP ratio, % <sup>a</sup>	4.0	4.2	4.2	4.7	4.9	5.4	6.4	5.6
Public expenditure on health, mln. Lei <sup>b</sup>	1105.2	1339.2	1572.4	2111.8	2628.4	3391.3	3846.8	3996.5
Private expenditure on health to GDP ratio, % <sup>a</sup>	3.7	3.6	4.2	5.0	5.1	5.3	5.5	6.33
Out-of-pocket payments <sup>c</sup> , mln. Lei <sup>b</sup>	513.3	602.1	758.0	957.6	1264.9	1529.2	1761.5	2356.3
Chargeable medical services and social work	145.9	170.9	192.9	223.3	264.6	311.9	350.7	510.2
Medicines	345.3	397.9	518.2	683.1	925.6	1075.2	1283.6	1687.4
Medical and orthopedic articles	26.9	36.7	51.1	57.0	82.9	148.4	136.5	169.0
Voluntary health insurance payout	4.8	3.4	4.2	5.8	8.2	6.3	9.3	10.3

Sources:

a WHO National Health Accounts database (9)

b Currency unit in Republic of Moldova

c Calculated as the sum of revenues received by health facilities from chargeable medical services, and patient out-of-pocket payments for medicines, minus payments from voluntary health insurance companies to health providers.

The share of the government budget allocated for health is widely used as an indication of the priority given by government to health relative to other sectors of the economy. According to the Medium Term Expenditure Framework (MTEF) 2012-2014, allocations will continue to decline from the level of 13.6% in 2010 (the highest allocation in the region for a lower-middle income country) to 12.7% in 2013 (see Table 3). Again, this is important information for policy-makers, especially when combined with expected lower overall levels of government spending. These two indicators (total government expenditures and allocations to health), when combined, give an indication of the importance of government spending on health in the overall economy, and the message is clearly one of falling importance.

**Table 3: Government health expenditures in Moldova 2011-2014**

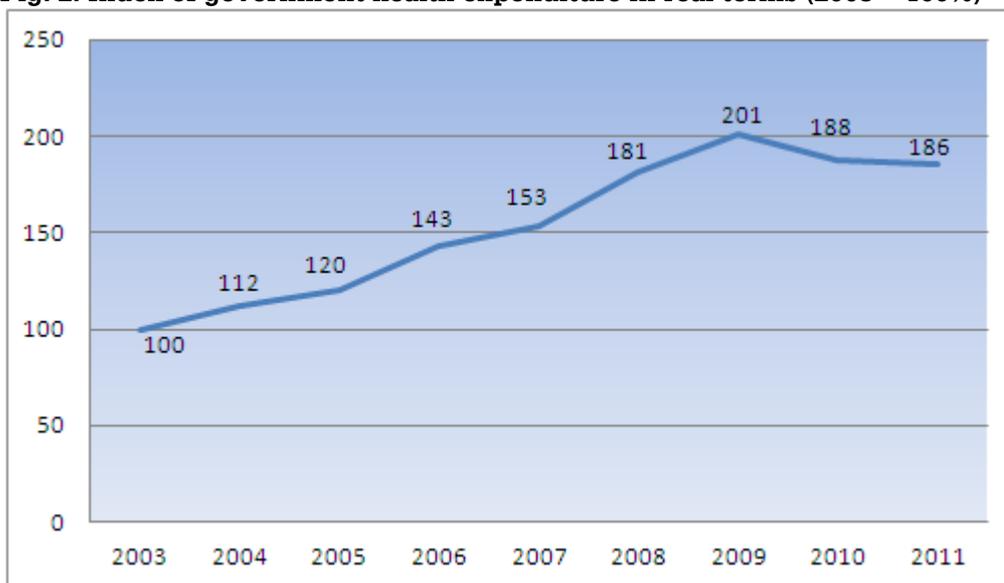
	2011	2012	2013	2014
Public expenditure on health (million Lei)	4295.3	4620.6	4995.6	5463.0
General government health expenditure as%GDP	5.2	5.0	4.9	5.1
General government health expenditure as% general government expenditure	13.2	13.0	12.7	12.7
Public expenditure on health in real terms (2009=100%)	92	92	94	98

Source: MOH data (13)

Government spending on health including budget expenditures and payroll tax revenues doubled in real terms from 2003 to 2009. It was only in 2010 that government spending on health in real terms declined by 6.4% compared to 2009, and this decline continued in 2011 (see Fig. 2), and is expected to continue into

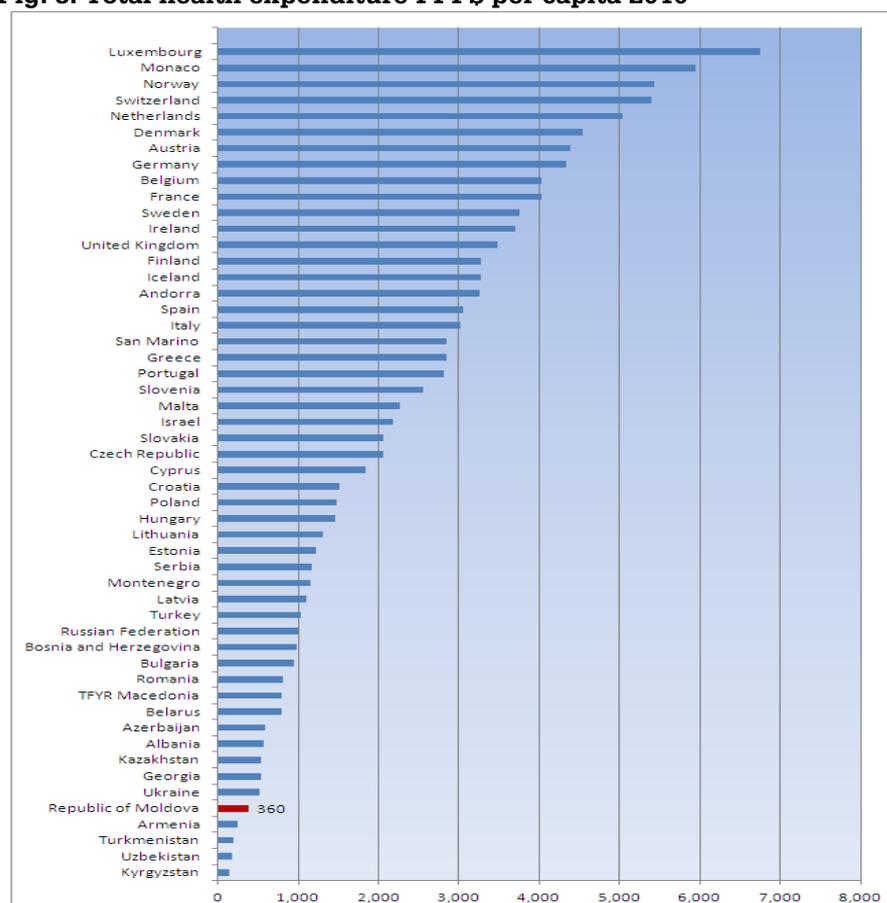
2012. This is consistent with the fiscal context described earlier although some recovery is expected from 2013 onwards. Whilst declining, government allocations to the health sector still remain quite high, although in absolute terms Moldova has one of the lowest levels of health spending in Europe (see Fig. 3).

**Fig. 2: Index of government health expenditure in real terms (2003 = 100%)<sup>1</sup>**



Source: NBS (10) and MOH (13)

**Fig. 3: Total health expenditure PPP\$ per capita 2010**

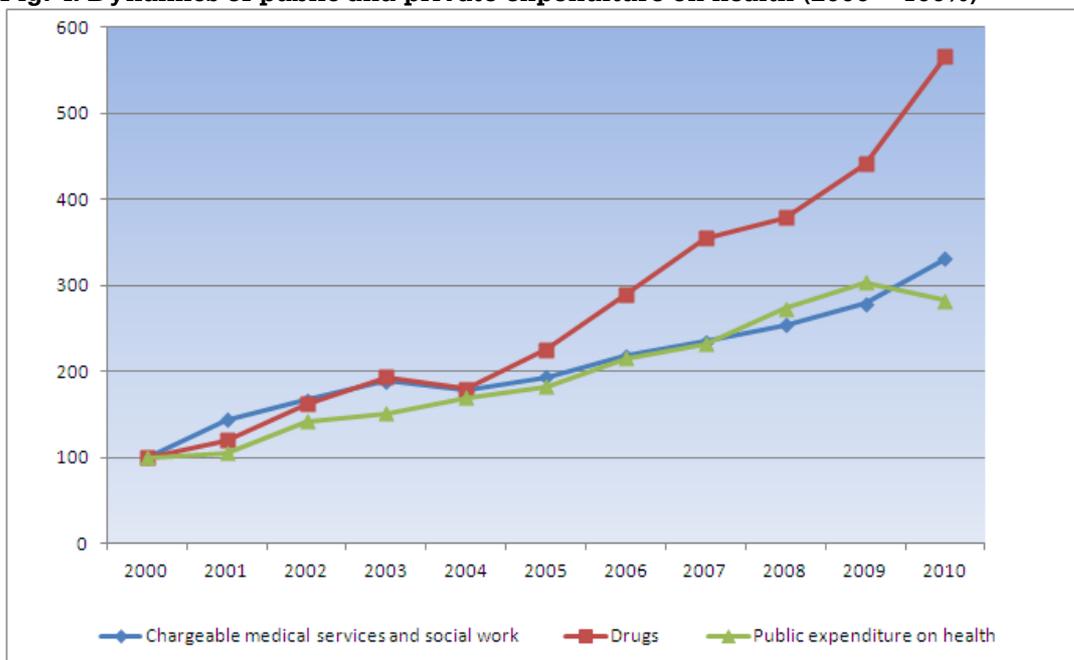


Source: WHO National Health Accounts database 2011(9)

<sup>1</sup> Calculations generated using annual GDP index-deflators

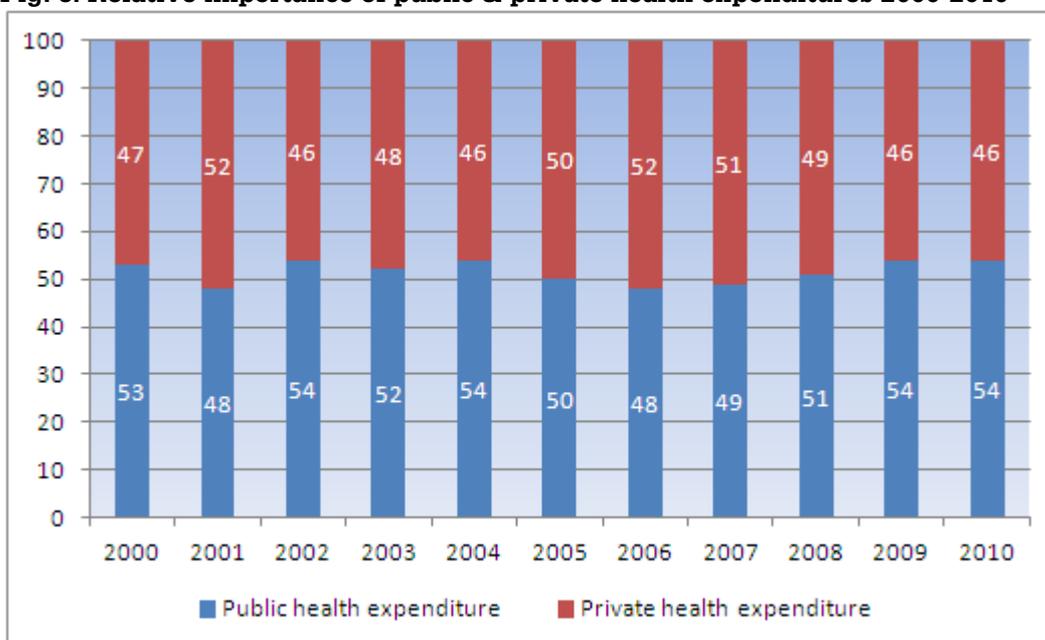
During the last decade both public and private health expenditures have increased considerably (see Tables 2 and 3, and Figures 2 and 4). The balance between government and private health spending, however, has not changed significantly over these years standing at 53% in 2000 and 54% in 2010 (see Fig. 5). This is an important finding in the evaluation of health financing reforms; that at the system level, there has been little improvement in levels of financial protection for the population as a whole.

**Fig. 4: Dynamics of public and private expenditure on health (2000 = 100%)<sup>2</sup>**



Source: NBS (10); MOH (13)

**Fig. 5: Relative importance of public & private health expenditures 2000-2010**



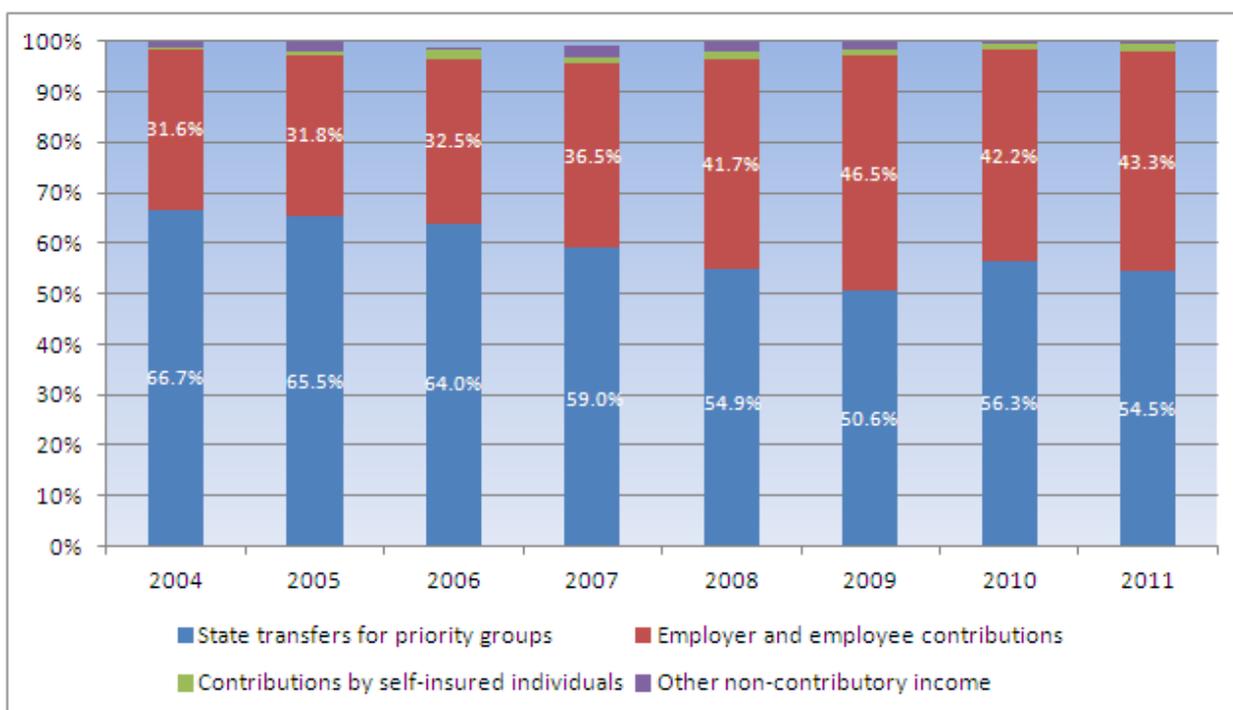
Sources: WHO National Health Accounts database (9)

<sup>2</sup> Public expenditure on health is deflated using an index-deflator of GDP; expenditure on medicines and chargeable medical and social services are deflated using the corresponding retail price indices.

### 2.3 Revenue raising and collection mechanisms

Revenue sources are mixed under the MHI scheme, including payroll taxes, flat rate contributions, and transfers from the state budget. One feature of the MHI model in Moldova, which is not unusual in lower-middle income countries, is the large share of revenues coming from budget contributions (approximately 67% in 2004). This percentage decreased to 54% in 2011 with further reductions expected in 2012 (see Fig. 6 and Table 4). This is the result of a deliberate government policy to reduce reliance on government budget transfers and measures have been proposed to further shift the balance in favour of payroll taxes. Whilst payroll tax rates are much higher in many neighbouring countries, the trend internationally is to reduce taxation on labour to improve its competitiveness, and to rely more and more on general taxation to fund health systems. From a health financing policy perspective, the balance between payroll taxes and general revenues is less important than how those funds are subsequently pooled and used to fund a benefit package for the population.

**Fig. 6: CNAM revenues by source 2004-2011**



Source: Based on MOH and CNAM data

Employer and employee contributions have been increasing as a share of total CNAM revenues, as state transfers have declined. This figure combines both government and private sector workers, and further analysis based on 2010 data shows that 57.2% of all employer and employee contributions revenues came from government workers; this indicates that policy efforts to reduce the burden of state transfers are to some extent limited given the high levels of government employees for whom the state makes MHI contributions.

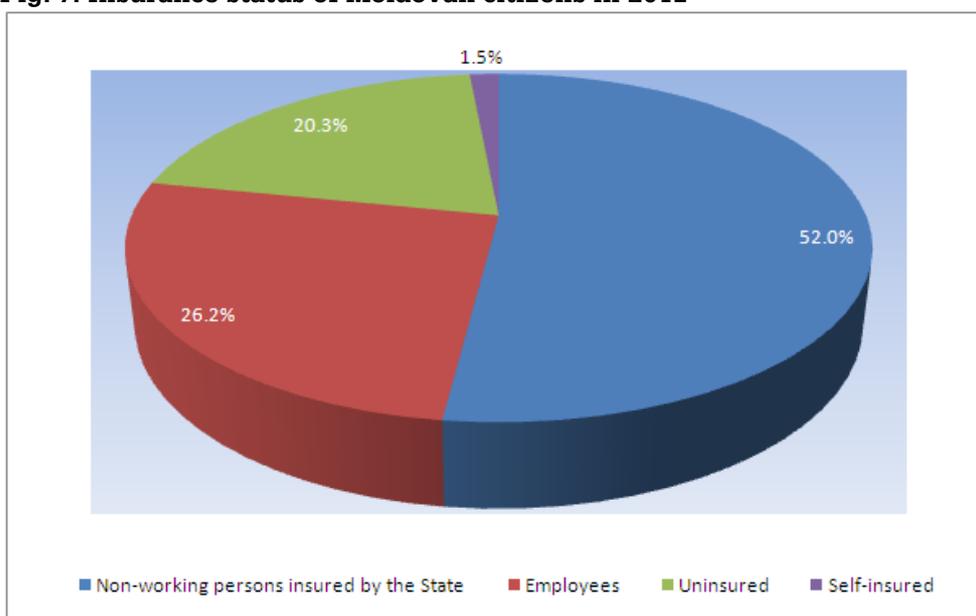
Total revenues to CNAM doubled in real terms between 2004 and 2010, but reduced slightly in 2011 (see Table 4). The Law on Mandatory Health Insurance stipulates that the economically active population is obliged to contribute according to their wages if they have an employer (payroll tax) or, if they are self-employed to pay a flat rate contribution (self-insured population). The remaining population, including those officially registered as unemployed, are exempt from making contributions, a fully subsidised being made by Government on their behalf. The total number of insured was 2 837 100 thousand in 2011 (including 933 400 employees, 1 851 200 non-working population insured by the government, and 52 700 self-insured), in total equivalent to 79.7% of the resident population<sup>3</sup> (see Fig. 7).

<sup>3</sup> The mode of estimation is discussed in paragraph 3.2.

**Table 4: Social health insurance contributions by sources (Lei million)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 (planned)
State contributions	11.0	651.3	839.5	1001.6	1195.0	1477.2	1456.6	1926.4	1984.4	2058.2
Employer and employee contributions	1.4	309.0	407.2	505.4	759.4	1120.9	1338.2	1446.3	1576.2	1878.6
Contributions of other categories of individuals	0	14.9	18.2	18.3	24.3	36.8	38.5	40.4	59.9	59.9
Other non-contributory income	0	1.7	16.8	33.8	57.7	53.8	45.5	11.2	16.1	12.0
MHI income, mln.lei	12.4	976.9	1281.7	1559.0	2036.4	2688.7	2878.9	3424.4	3636.6	3982.2
MHI income in real terms (2004=100%)	n/a	100	120	126	142	175	184	197	193	197

Source: Based on MOH and CNAM data

**Fig. 7: Insurance status of Moldovan citizens in 2011**

Source: Based on CNAM data

For those with an employer, the insurance contribution rate was set at 4% (shared equally by employers and employees) at inception in 2004 and thereafter incrementally increased up to 7% (again shared equally) by 2009. The self-employed pay a flat rate contribution equal to the average per capita cost of the health care benefit package guaranteed by MHI. The rate is reviewed and set by the Government every year (see Table 5).

**Table 5: Contribution rates for self-insured and budget contributions for the non-working**

	2004	2005	2006	2007	2008	2009	2010	2011
Lei*	441	664.8	816	1 209	1 893.6	2 637.6	2 478	2 772
USD**	36	52	62	100	182	238	200	237

\* *Source:* Based on MoH data

\*\* Calculations based on Lei/USD average annual exchange rate data. *Source:* IMF (8)

One important feature of the collection mechanism introduced in 2004 is the principle of equality between the per capita contribution of the non-working and working population, and the expected per capita cost of the MHI insurance programme. This principle distinguished the design of social health insurance in Moldova from other countries and served as an instrument to ensure that state guarantees in terms of the benefit package and the funding made available remained in balance.

This principle led directly to the increased levels of government spending on health observed earlier but fiscally this became unsustainable. The Government was faced with the challenge of either decreasing the rate of payroll tax or revising the rule of directly linking payroll contributions and budget contributions. The second option was chosen, and the decision was made to decouple payroll contributions and budget contributions while keeping the latter strictly fixed. Since 2007, the budget contribution for persons insured by the state has been fixed at 12.1% of general government expenditure. Despite this change revenues to CNAM remain relatively stable which is critical for the purpose of planning and contracting services.

## 2.4 MHI expenditure analysis

CNAM spends approximately 85% of all government spending on health. Section 5 looks separately at how health spending has been allocated geographically since the creation of MHI. Following the Government Regulation which established MHI and CNAM (14) financial resources were split into four funds: a Main Fund (94% of revenues), a Reserve Fund, a Preventive Fund, and an Administrative Fund (each receiving 2% of revenues).

A fifth fund for the development and modernization of public service providers was established in 2011. This fund receives 1.5% of MHI revenues with allocations to the other funds revised as follows: Main Fund 95%, Reserve Fund 1.5%, Preventive Fund 1%, and Administrative Fund 1%. CNAM resources have, until recently, been used to pay almost exclusively for health services for the insured population. As such, the approximately 75% of the population insured have been the main beneficiaries of increased health spending with the remaining 25% benefitting little. Legislation in 2009 making primary health care universal changed this with CNAM funding a significantly larger scope of services for the uninsured as well. Tables 6 and 7 show how CNAM used its funds to contract various types of health services. The structure of funds allocation has changed little over the years. One positive trend is the increase in the proportion of funds allocated for reimbursable outpatient medicines which we know from previous analysis is a major driver of catastrophic and impoverishing health expenditures by households (15).

**Table 6: Allocation of CNAM funds 2007–2011 (Lei million)**

Type of care	2007	2008	2009	2010	2011
Emergency pre-hospital (ambulance) care	160.2	234.0	269.7	299.5	306.8
Primary health care	547.7	747.9	924.5	1 010.8	1044.8
Incl. compensated outpatient medicines	40.9	55.3	74.1	116.8	150.0
Outpatient specialized care	126.7	177.3	226.4	235.6	257.0
High performance health care	38.1	60.5	65.5	75.3	87.2
Hospital health care	952.8	1 230.9	1 478.4	1 670.1	1 779.9
Home provided health care	-	2.0	2.1	2.6	3.6
<b>TOTAL</b>	1 825.5	2 466.7	2 965.3	3 293.9	3 479.3

*Source:* Based on CNAM data

**Table 7: Allocation of CNAM funds 2007–2011 (%)**

Type of care	2007	2008	2009	2010	2011
Emergency pre-hospital (ambulance) care	8.8	9.5	9.1	9.1	8.8
Primary health care	30.0	30.3	31.2	30.7	30.0
Incl. compensated outpatient medicines	2.2	2.2	2.5	3.5	4.3
Outpatient specialized care	6.9	7.2	7.6	7.2	7.4
High performance health care	2.1	2.5	2.2	2.3	2.5
Hospital health care	52.2	49.9	49.9	50.7	51.2
Home provided health care	-	0.1	0.1	0.1	0.1
<b>TOTAL</b>	100	100	100	100	100

Source: Based on CNAM data

## 2.5 Contracting health care services

CNAM allocates funds for providers of PHC, emergency care and specialized outpatient care through capitation i.e. a fixed amount based on the number of insured and uninsured individuals registered to a particular provider. Hence, volumes of care are not defined in the way they are for hospitals, although each provider must report back to CNAM the number of visits by insured and uninsured individuals. In 2005 an effort was made to improve the accuracy of PHC providers reporting which in many cases was being inflated. As a result, the reported number of visits to family doctors decreased by 22% in 2005 compared with 2004 (see Table 8). In 2006-2009 levels of utilization remained stable, decreasing in 2010, and standing at 5% less of the 2005 level in 2011. This is of some concern and explains why primary health care is at the centre of current government health reforms. In addition, bonus payments were introduced for PHC and emergency care in 2005, as well as for specialized outpatient care in 2006.

For inpatient care, CNAM negotiates the volume of care provided by a provider. In most cases, volumes contracted have increased year on year (see Table 8). The number of emergency calls funded by CNAM increased by 45% during 2004-2011, the number of specialist consultations by 97%, and the number of inpatient cases by 20% (see Table 8).

**Table 8: Volumes of services funded by CNAM**

	2004	2005	2007	2008	2009	2010	2011
<b>Number of visits to family doctor (total)</b>	<b>13 636 365</b>	<b>10 591 894</b>	<b>10 384 212</b>	<b>10 448 463</b>	<b>10 695 291</b>	<b>9 650 962</b>	<b>10 069 567</b>
by insured	12 400 000	9 700 000	9 700 000	9 795 824	10 102 991	8 961 370	9 377 728
by uninsured	1 236 365	891 894	684 212	652 639	592 300	689 592	691 839
<b>Emergency calls (total)</b>	<b>692 099</b>	<b>858 315</b>	<b>921 517</b>	<b>907 623</b>	<b>934 609</b>	<b>916 207</b>	<b>1 002 729</b>
by insured	651 895	817 766	877 936	866 253	891 331	872 182	855 809
by uninsured	40 204	40 549	43 581	41 370	43 278	44 025	146 920
<b>Consultations by specialists</b>							
for insured	3 339 234	4 806 225	5 340 340	5 753 851	5 928 339	6 094 119	6 578 959
for uninsured	-	-	-	-	-	-	-
<b>Number of patients hospitalized<sup>4</sup></b>							
Insured	475 597	499 431	511 061	538 691	537 315	553 482	571 140
Uninsured	-	-	-	-	8 389		

Source: Based on CNAM data

<sup>4</sup> Number of treated cases.

Utilization of health services by the insured allows an analysis of how CNAM funds are being used in practice (see Table 9). The average number of consultations with family doctors by the insured changed little over the period 2005-2011. For the uninsured, the average number of visits to family doctors decreased up to 2009, but then increased by 62% in 2010, and by a further 12% in 2011 (see Table 9). This increase would appear to be a direct result of the new legislation, although remains low in absolute terms. Utilization of specialist services by the insured has gradually increased since 2004 decreasing slightly after 2009 (see Fig. 8) as has the use of inpatient care overall although at a much slower rate.

**Table 9: Utilization of health services by insured and uninsured populations**

	2004	2005	2006	2007	2008	2009	2010	2011
<b>Number of visits to family doctor</b>								
by inhabitant <sup>a</sup>	3.78	2.94	2.86	2.90	2.92	3.00	3.09	2.83
by insured	5.48	4.02	3.80	3.68	3.81	4.13	3.74	3.31
by uninsured	0.92	0.75	0.69	0.72	0.65	0.53	0.86	0.96
<b>Emergency calls</b>								
by inhabitant <sup>a</sup>	0.192	0.238	0.245	0.257	0.254	0.262	0.257	0.282
by insured	0.288	0.339	0.334	0.333	0.337	0.364	0.316	0.302
by uninsured	0.030	0.034	0.040	0.046	0.041	0.039	0.055	0.203
<b>Specialist consultations</b> (by insured)	1.48	1.99	2.06	2.03	2.24	2.42	2.21	2.32
<b>Rate of hospitalization</b> (by insured)	0.210	0.207	0.200	0.194	0.210	0.219	0.200	0.201

<sup>a</sup> Calculated using resident population data

Source: Based on CNAM data

The evolution of tariffs for services contracted by CNAM is presented in Table 10. For all types of care these have gradually increased since the introduction of MHI. The per capita amount paid for PHC increased dramatically in 2009 following an increase in CNAM revenues after an increase in payroll contributions from 6% to 7%, together with a reduction in the number of insured by 4.7% as a consequence of financial crisis. In real terms, the tariff for specialized outpatient care grew faster than that for primary care (see Table 11) with tariffs for inpatient care growing most slowly.

**Table 10: Tariffs for health care services used by CNAM (Moldovan Lei)**

	2004	2005	2006	2007	2008	2009	2010	2011
Primary care (per capita payment)		135.88	165.25	220.63	295.74	385.11	315.9	317.18
Under 5 years	n/a	n/a	n/a	n/a	n/a	n/a	408.64	393.64
5-50 year	n/a	n/a	n/a	n/a	n/a	n/a	240.38	231.55
>50 year	n/a	n/a	n/a	n/a	n/a	n/a	360.57	347.33
Emergency care (per ambulance visit until 2006; per capita thereafter)	180 per visit	180 per visit	48.00	59.97	89.49	114.48	92.30	93.14
Specialized outpatient care (per capita payment)	n/a	n/a	34.50	46.95	71.91	94.86	105.5	108.57
Inpatient care (per case) <sup>5</sup>	n/a	1324.7	1500.0	1864.3	2285.0	2709.2	3017.4	3265.4

Source: Based on CNAM data

<sup>5</sup> The average tariff per "treated case" according to disease category differs for Rayon health-sanitary institutions and municipal and national facilities and has been approved by MOH order.

**Table 11: Changes in tariffs for health care services used by CNAM in real terms (2006=100%)**

	2006	2007	2008	2009	2010	2011
Primary care (per capita payment)	100	121	149	189	151	146
Emergency care (per ambulance visit till 2006, per capita since 2006)	100	113	155	193	152	147
Specialized outpatient care (per capita payment)	100	123	173	223	242	239
Inpatient care (per case)	100	112	127	147	159	165

Source: Based on CNAM data

In 2010, capitation payments for family doctors dropped by 20% compared to 2009. The bonus payment was also abolished for PHC and outpatient specialist providers. However the funds allocated for reimbursable medications for outpatient care rose 1.6 times, and the total amount of funds allocated for primary care increased by 9.3% (refer back to Table 6). The increase in the number of citizens with the right to free primary health care was not accompanied by an adequate increase in funding of family doctor services affecting the accessibility of primary care for both uninsured and insured persons (see further discussion in Section 4.3).

In 2011 CNAM restored the scheme whereby additional payments to PHC and outpatient specialist providers are made according to a variety of performance indicators. Such schemes are becoming standard practice in many countries and will be critical to achieving efficiency gains in service delivery in the future.

### **3. Evaluation of policies to increase population coverage under health insurance**

#### **3.1 Health insurance coverage policy**

Whilst the large scale reforms introduced in 2004 have led to many positive improvements in the underlying architecture of government financing for health services, the main shortcoming was the fundamental shift in the basis of entitlement away from citizenship to one based on making a premium contribution. MHI is compulsory for all citizens, but the self-employed population of working age must self-insure i.e. purchase the policy from CNAM themselves. Penalties for failure to make this purchase whilst in place since 2003 were not widely enforced until 2010. Thus, for part of the population the decision to purchase MHI is in effect a voluntary one, although less and less so as the government enforcements the law more rigorously. As a result, more than 20% of citizens remain uninsured seven years after the reforms. Following the reforms, being insured under MHI was the main instrument through which access to health services could be obtained, without facing severe financial implications.

In 2009, the focus of health financing policy shifted to the issue of gaps in population coverage under MHI. Several legislative amendments were made that extended benefits to the most vulnerable i.e. uninsured citizens and the poorest. Detailed recommendations were made in a technical report prepared in 2008/2009 which recommended a number of strategies to tackle the issue (7).

Moldova continues to use financial incentives to encourage the self-employed to buy insurance. Discounts were introduced in 2008, set at 50% of the premium level for those who purchased insurance in the first three months of the year. Amendments made under Law No. 128-XVIII on 23 December 2009 revised discounts along occupational lines as a proxy for ability to pay, increasing the discount rate to 75% for self-employed agricultural workers (category i below) with the remaining categories continuing to be eligible for a 50% discount; discounts were no longer offered to notaries and lawyers in 2009.

Those eligible for discounts include residents in the Republic of Moldova belonging to one of the following categories:

- i. owners of agricultural land, excluding vegetable gardens and plots of land for gardening, regardless of whether these are leased out or used on the basis of a contract with the exception of disabled and pensioners;
- ii. founders of individual enterprises, with the exception of disabled people and pensioners;
- iii. individuals, renting or using agricultural land based on a contract; and
- iv. holders of business patents, with the exception of disabled people and pensioners; and
- v. individuals who receive income from the rental of transportation, facilities/buildings, equipment and other material goods, with the exception of agricultural land.

The policy of providing discounted premia to those who self-insure appear to have had a negative effect on fair financing, with the better-off more likely to avail of what is effectively a government subsidy (7). The de facto voluntary nature of contributions for the self-insured has resulted in adverse selection. Notwithstanding this, the Government has continued with the policy. Other levers have been used to ensure that employers make health insurance contributions on behalf of their employees, e.g. small business owners ("patent holders") must be able to show that they have contributed on behalf of their employees when renewing their annual license. These various measures are largely in line with recommendations made in a 2009 report (16).

In 2009, the focus of health care policy shifted to the issue of population coverage under MHI. Law No. 22-XVI, adopted on 2 February 2009, aimed to ensure that members of households eligible for social benefits as defined by the Law 'On Social Benefits' № 133-XVI (13 June 2008), are automatically insured under MHI by triggering a full government subsidy.

Law No. 108 (17 December 2009) approved at the end of 2009 extended benefits for the uninsured (PHC and emergency outpatient care) and assumed that the additional cost would be covered by available MHI funds. Previously, according to Law No. 411 all citizens had the right to only very limited PHC i.e. clinical examination with recommendations for further assessment and treatment and to specialized outpatient and inpatient care for "socially-caused" diseases e.g. TB, HIV, AIDS, sexually transmitted diseases, psychoses and other mental and behavioural abnormalities in the acute form, alcoholism and drug addiction. This extension of guarantees was, however, trimmed back after 12 months following a large increase in demand for outpatient medicines which CNAM had to reimburse. This issue is described further in section 4.1.

The approach of targeting the self-employed to enrol in the scheme continued in 2011, with penalties for those who did not pay contributions in previous years cancelled for those persons paying in 2011. In addition to the revised discount policy, CNAM significantly increased administrative pressure on the self-employed in 2011, and was prepared to contest this issue in the courts.

### 3.2 Estimates of health insurance coverage rates

Assessing levels of population coverage under insurance schemes is always problematic, and highly dependent on the way in which the denominator i.e. target population is defined. There are further complications when disaggregated estimates are required e.g. to assess how population coverage rates differ across geographical areas. In 2010 CNAM changed the methodology of calculating insurance coverage and recalculated the figures for previous years.

The most difficult element of estimating population coverage is the definition of the denominator; in Moldova two different figures can be used: i) resident population<sup>6</sup>, or ii) present population. Official estimates in MOH and CNAM reports are based on ii) present population putting the share of the population without insurance at 19.2% in 2010. The most recent figures for both are presented in Table 12.

**Table 12: Estimates of insured and uninsured, according to different information sources**

	2004	2005	2006	2007	2008	2009	2010	2011
Resident population <sup>a</sup>	3607.4	3600.4	3589.3	3581.1	3572.7	3567.5	3563.7	3560.4
Insured <sup>b</sup>	2263.5	2411.2	2498.1	2634.4	2568.7	2448.1	2760.6	2837.1
Uninsured <sup>c</sup>	1343.9	1189.2	1091.2	946.7	1004	1119.4	803.1	723.3
Share of uninsured in resident population, %	37.3	33.0	30.4	26.4	28.1	31.4	22.5	20.3
Present population <sup>a</sup>	3606.8	3386.0	3395.6	3432.8	3424.4	3419.4	3415.6	3413.0
Uninsured <sup>d</sup>	1343.3	974.8	897.5	798.4	855.7	971.3	655.0	575.9
Share of uninsured in present population, %	37.2	28.8	26.4	23.3	25.0	28.4	19.2	16.9

Sources:

a – NBS data (10)

b – CNAM 2011, provided on request.

c – calculated as the difference between number of resident population and number of insured.

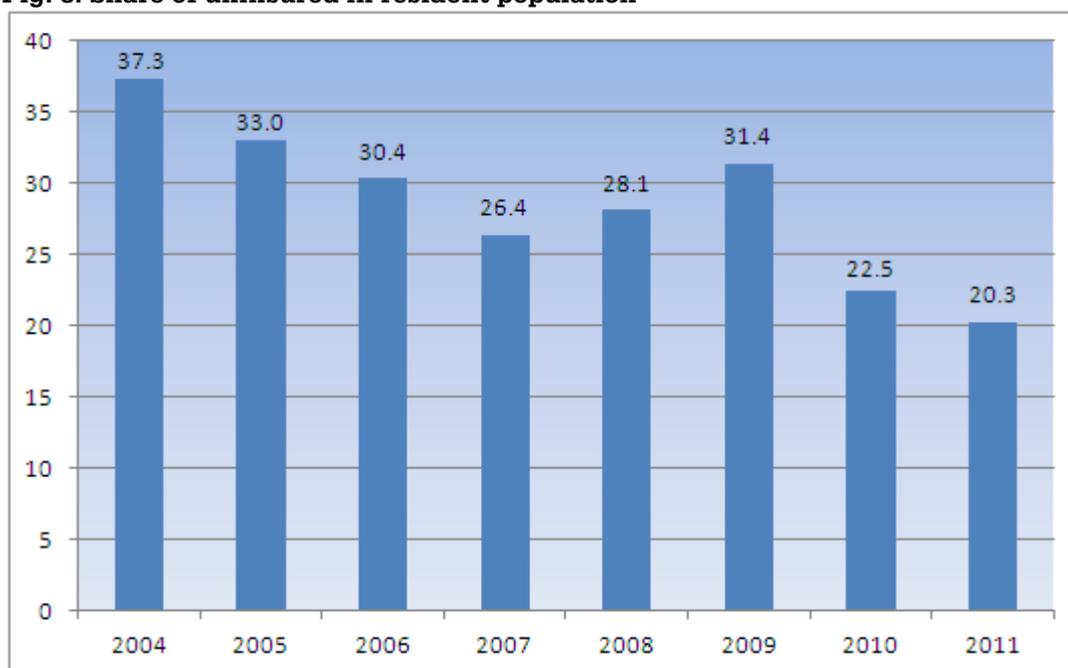
d – calculated as the difference between number of present population and number of insured.

However, figures for the resident population appear fairer, as the law on health insurance applies to all citizens of Moldova and does not distinguish between present and resident populations. Thus all estimations presented in the remainder of this report are calculated on the basis of the resident population. As such, the share of uninsured is estimated to be 22.5% in 2010 and 20.3% in 2011.

Immediately following the nationwide implementation of MHI in 2004 the share of uninsured in the resident population was at its height (37.3% of the population); this reduced to 26.4% by 2007, but increased again in 2008-2009 (see Fig. 8). In 2010 the figure dropped to 22.5%, but this was largely due to changes in the methodology used. The increase seen in 2009 was most likely a result of the financial crisis when unemployment increased dramatically from 4.0% to 6.4% of the population. The number of self-insured also decreased significantly (27.2%) in 2009 to 25 700, but increased the following year to 33 500, and again in 2011 to 52 700 (see bottom row of Table 13). Incentives to stimulate the purchase of health insurance appears to have had some impact on coverage, but the increase in 2010 was modest given the scale of the discount offered. However, concerted efforts to enforce contributions by the self-employed appear to have had a substantial effect with enrollees increasing by 57% in 2011. Despite this progress, only a very low 6.8% of those who are expected to self-insure are actually doing so, which on reflection is of little surprise given the experience of many countries around the world facing similar challenges.

<sup>6</sup> According to the NBS website ([www.statistica.md](http://www.statistica.md)) *present population* refers to the number of persons present at the time of the last census which includes those temporarily resident. *Resident population* refers to the number of persons permanently resident in Moldova, including those temporarily absent.

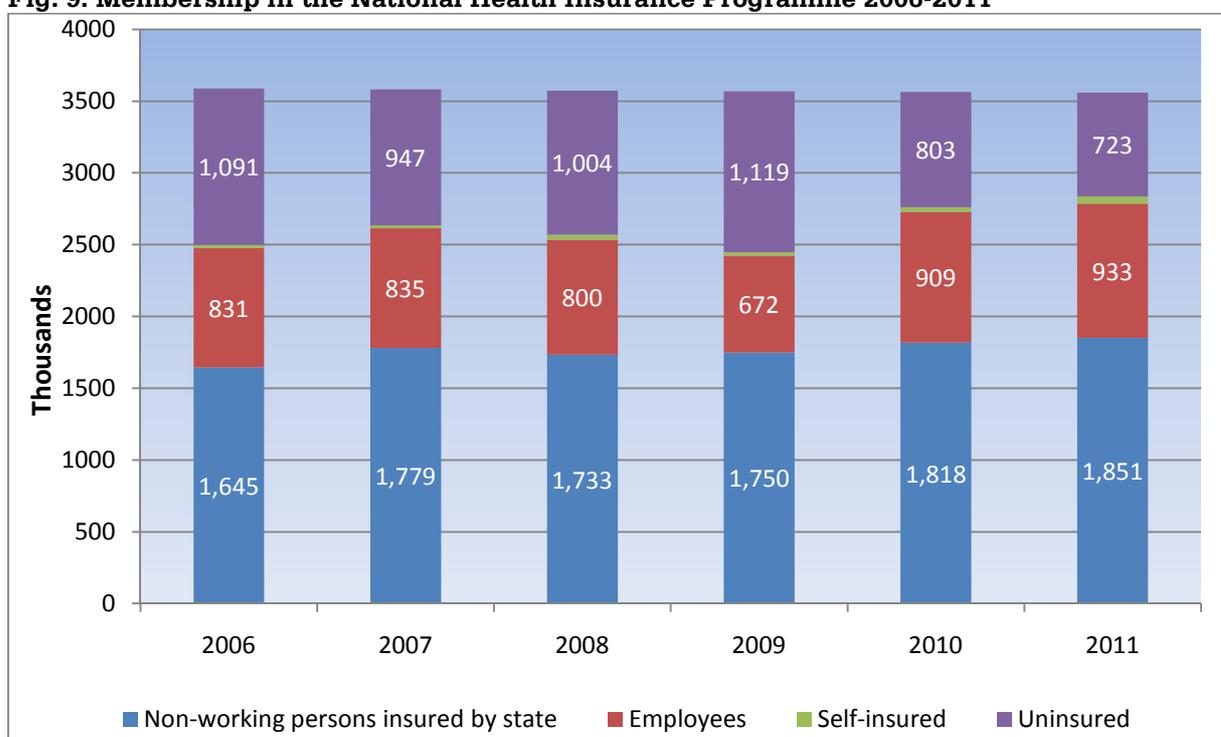
**Fig. 8: Share of uninsured in resident population**



Source: calculations based on resident population, NBS data (10) and CNAM data provided to the WHO Euro office on request.

Changes in the balance between the different categories of insured are presented in the Fig. 9 and Table 13. The increase in insured and decrease in the number of employees in 2009 are both a direct consequence of the financial crisis. The number of individuals self-insuring decreased by 27.2% in 2009 (from 35 300 to 25 700 persons), but increased by 31.5% (from 25 700 in 2009 to 33 500) in 2010, and by 57% (from 33 500 to 52 700) in 2011.

**Fig. 9: Membership in the National Health Insurance Programme 2006-2011**



Source: Based on CNAM data

**Table 13: Number of individuals insured by the State by category, and self-insured (thousands)**

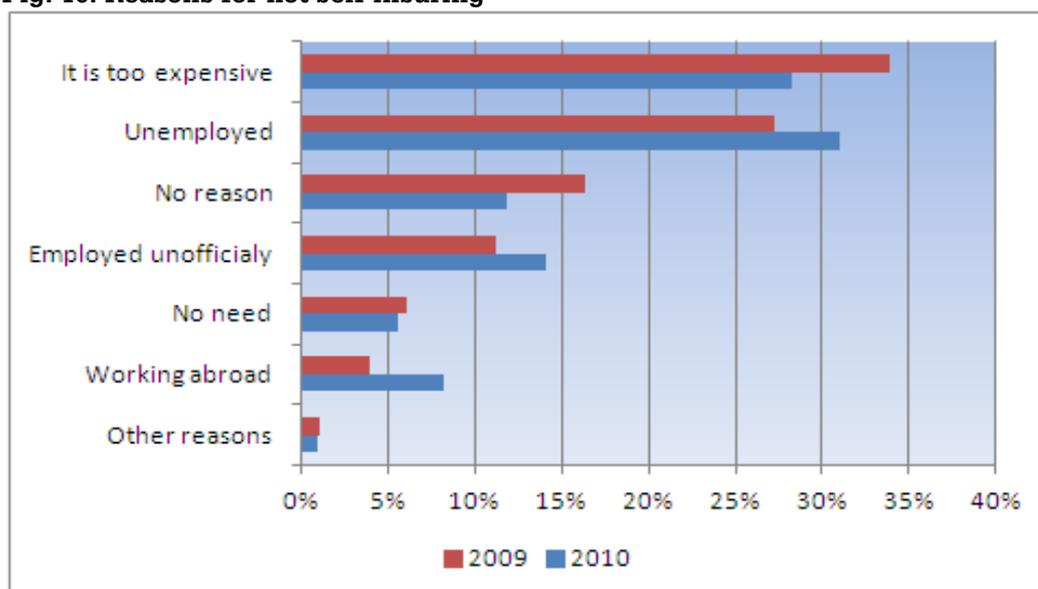
	2008	2009	2010	2011
<b>Total insured by the State</b>	<b>1733.3</b>	<b>1750.0</b>	<b>1818.2</b>	<b>1851.0</b>
1. Pre-schoolchildren	259.6	261.0	308.5	315.0
2. Primary and secondary school students. Students of gymnasiums and lyceums	461.0	424.3	413.7	413.7
3. Students of secondary vocational schools, colleges.	55.8	56.0	54.4	54.4
4. Students of higher, university education institutions, full-time.	122.9	110.5	109.9	109.9
5. Postgraduates, residents	1.5	1.4	2.0	2.0
6. Un-enrolled children up to 18	0.1	4.7	5.6	5.6
7. Disabled	129.7	153.1	176.7	188.8
8. Disabled from childhood	10.1	10.8	15.4	17.4
9. Pensioners	489.7	497.3	516.3	529.1
10. Unemployed, officially registered	18.9	28.0	10.6	10.0
11. Pregnant women	38.0	40.7	41.6	41.6
12. Mothers with 4 or more children	146.0	146.0	146.0	146.0
13. People from disadvantaged families receiving of social support under Law №133-XVI of 13 June 2008	-	16.2	17.5	17.5
<b>Self-insured</b>	<b>35.3</b>	<b>25.7</b>	<b>33.5</b>	<b>52.7</b>

Source: CNAM data

### 3.3 Reasons for not purchasing health insurance

The NBS household survey includes a question on reasons for not self-insuring. Those who should self-insure are asked whether or not they did, and if not, why not. As the list of reasons for not self-insuring changed in the 2009 survey, the following analysis is restricted to 2009 and 2010 data (see Fig. 10). While the number of respondents indicating “It is too expensive” fell from 34% in 2009 to 28% in 2010, the drop in numbers is small compared to the price reduction offered through discounted premia and the number of potential beneficiaries. This is further evidence that the demand for health insurance is relatively price inelastic.

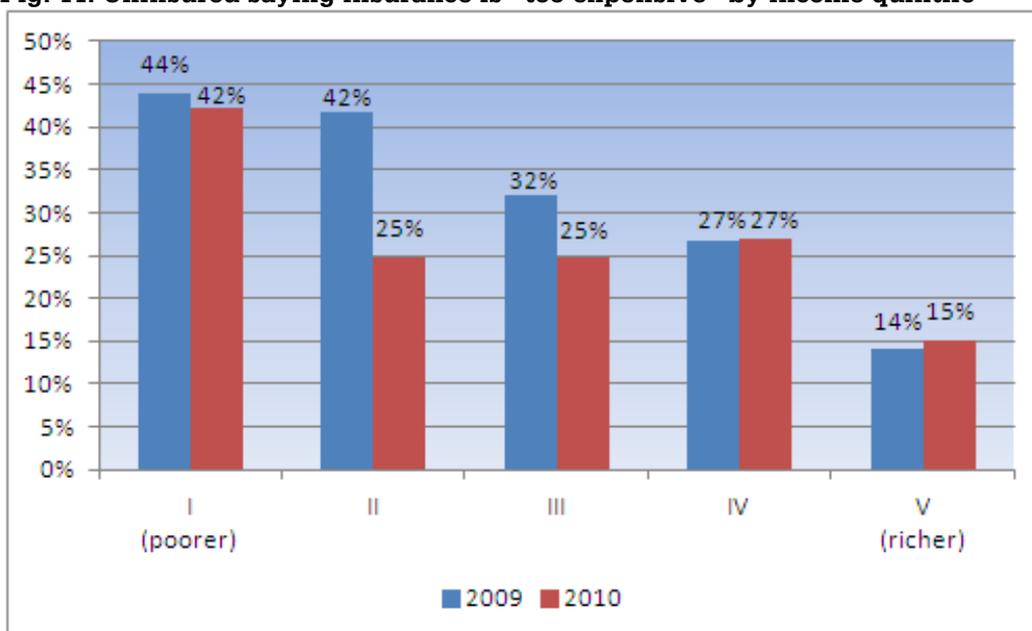
**Fig. 10: Reasons for not self-insuring**



Source: Based on NBS data (10)

When analysed by income quintile (Fig. 11), health insurance is still considered too expensive for the poorest quintile. Only for quintiles II and III did it seem that discounts made any difference.

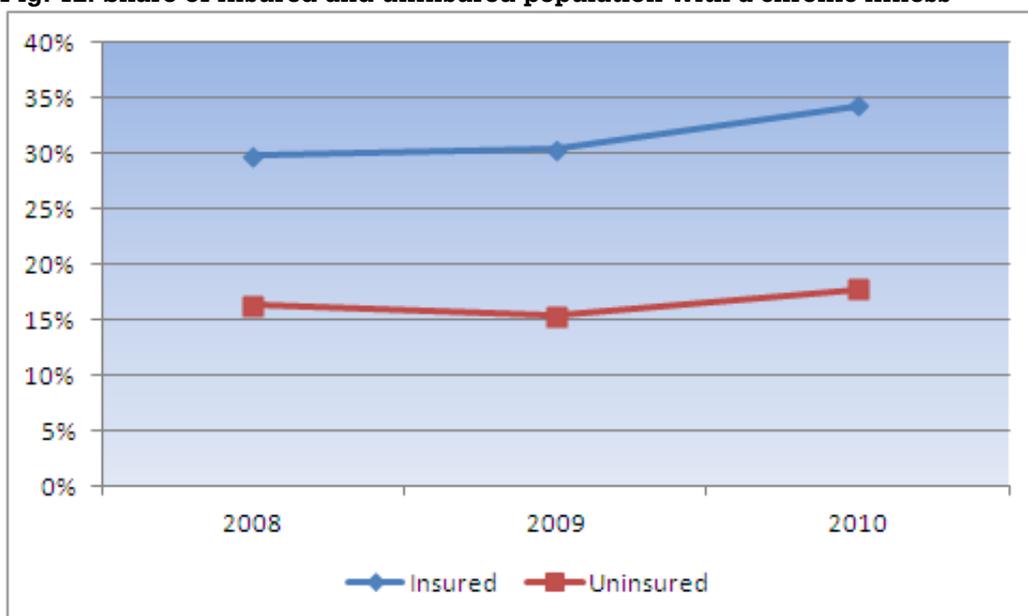
**Fig. 11: Uninsured saying insurance is “too expensive” by income quintile**



Source: Based on NBS data (10)

The share of uninsured people indicating that they have a chronic illness is half that of those insured (see Fig. 12). This is further evidence that the system of self-purchasing of insurance and its promotion by discounts leads to adverse selection: healthier self-employed persons prefer not to be involved in MHI.

**Fig. 12: Share of insured and uninsured population with a chronic illness**



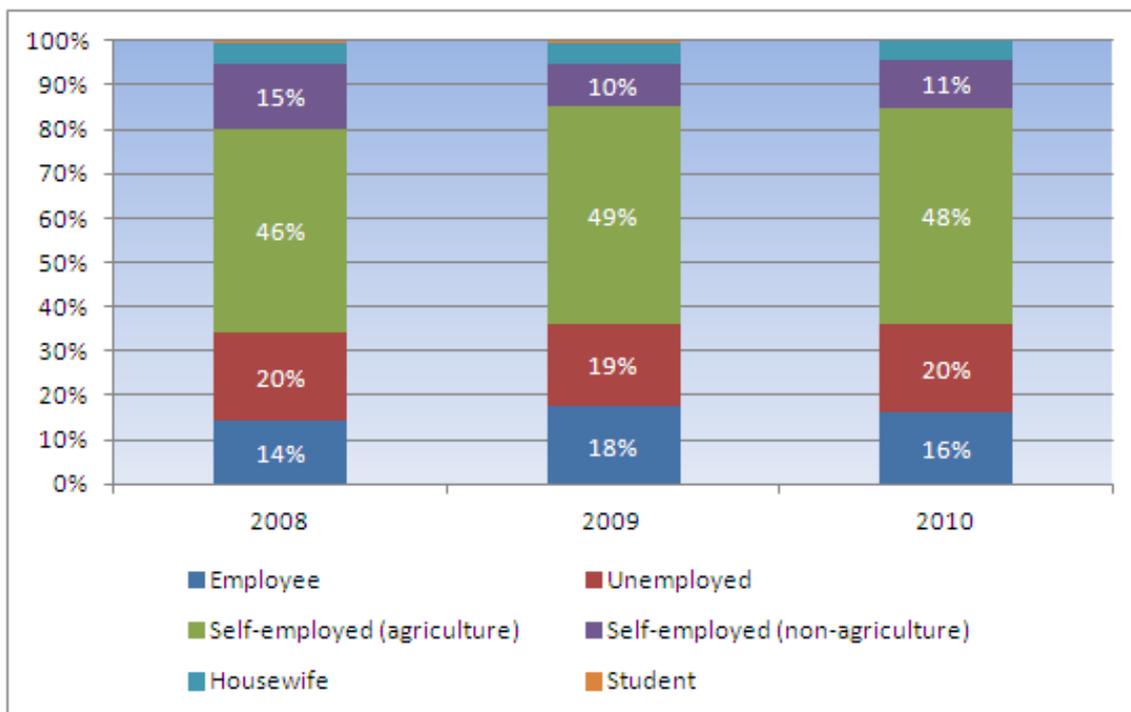
Source: Based on NBS data (10)

What is noteworthy is the high proportion of uninsured respondents saying they are unemployed (see Fig. 13 in the following section). This reflects the lack of formal employment opportunities especially during the financial crisis, and suggests that economic incentives to purchase insurance will have little effect.

### 3.4 Profile of the uninsured population by occupational status, location and income

Unemployment increased sharply in Moldova as a result of the financial crisis. From 4.0% in 2008, it jumped to 6.4% in 2009 and 7.4% in 2010, reducing to just over 6% in 2011. The IMF projects that the rate will fall gradually to 5.0% by 2015. However, these changes are not evident when health insurance coverage data is disaggregated by employment status (see Fig. 15). The most notable shift is the increase in those self-employed in agriculture (with a corresponding decrease in the self-employed engaged in non-agricultural activities), in 2009 compared with 2008. The data shows little change in 2010, but given the implications for insurance coverage rates, government policy responses, and government finances, this issue should be monitored closely.

**Fig. 13: Distribution of uninsured by employment status**

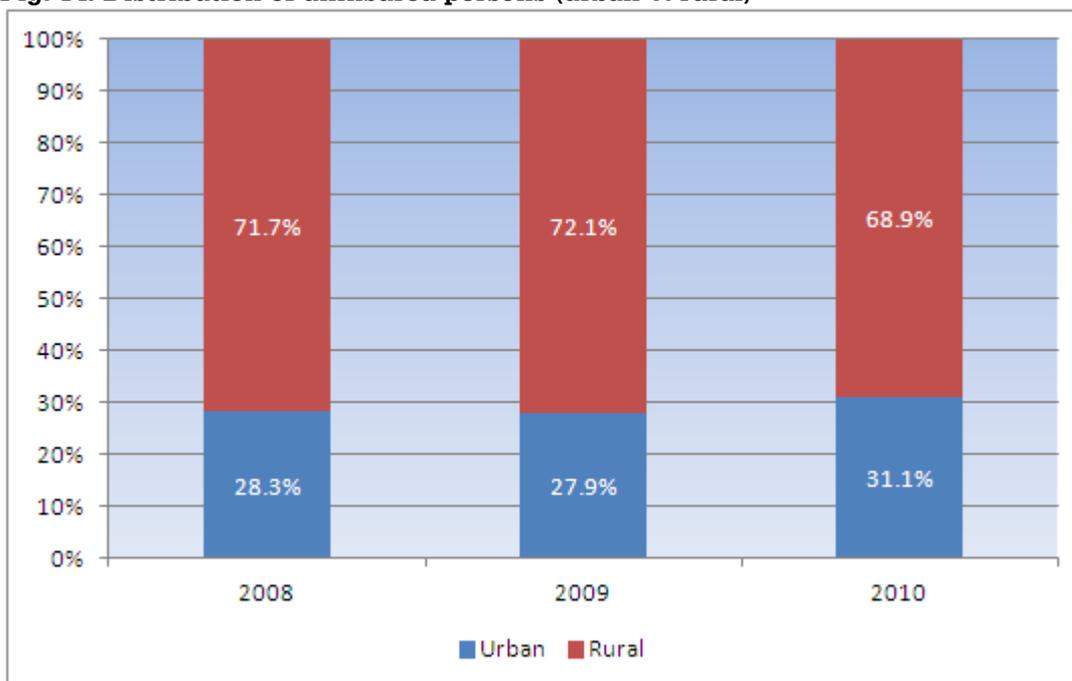


Source: Based on NBS data (10)

The high proportion of unemployed and informally employed among the uninsured population (20.3% and 16.0% respectively in 2010) indicates that health financing policy is limited in terms of what it can achieve if unemployment is rising and the social security system is not dealing with this problem effectively. In principle, unemployed people must be insured by the State, but must first be officially registered and in receipt of unemployment benefit. However, the right to unemployment benefit is valid for no longer than six months, after which the right to fully subsidised MHI is removed. This highlights the impact of labour market and employment policy on the performance of MHI which has been documented extensively elsewhere (17).

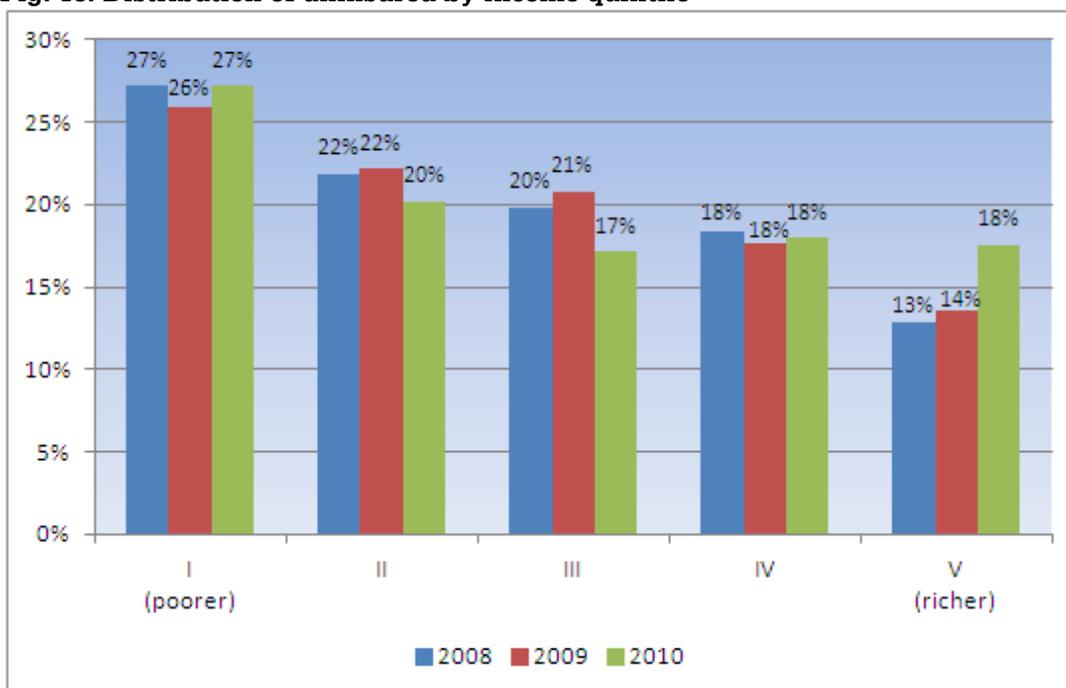
Figures 14 and 15 provide further disaggregated data in terms of who the uninsured are. There has been a small decline in the proportion of uninsured in rural areas although they still represent the vast majority. This may be a result of Law No. 22-XVI given that most of the poor live in rural areas; it may also be the result of the deep discount (75%) provided to those working in agriculture (see section 3.1). In terms of whether the legislation has been effective in increasing insurance coverage amongst the poor, it is perhaps too early to say, with the data in Fig. 16 showing little change amongst the poorest quintile. The fall amongst those in quintiles II and III is consistent with the responses given in Fig. 10.

**Fig. 14: Distribution of uninsured persons (urban v. rural)**



Source: Based on NBS data (10)

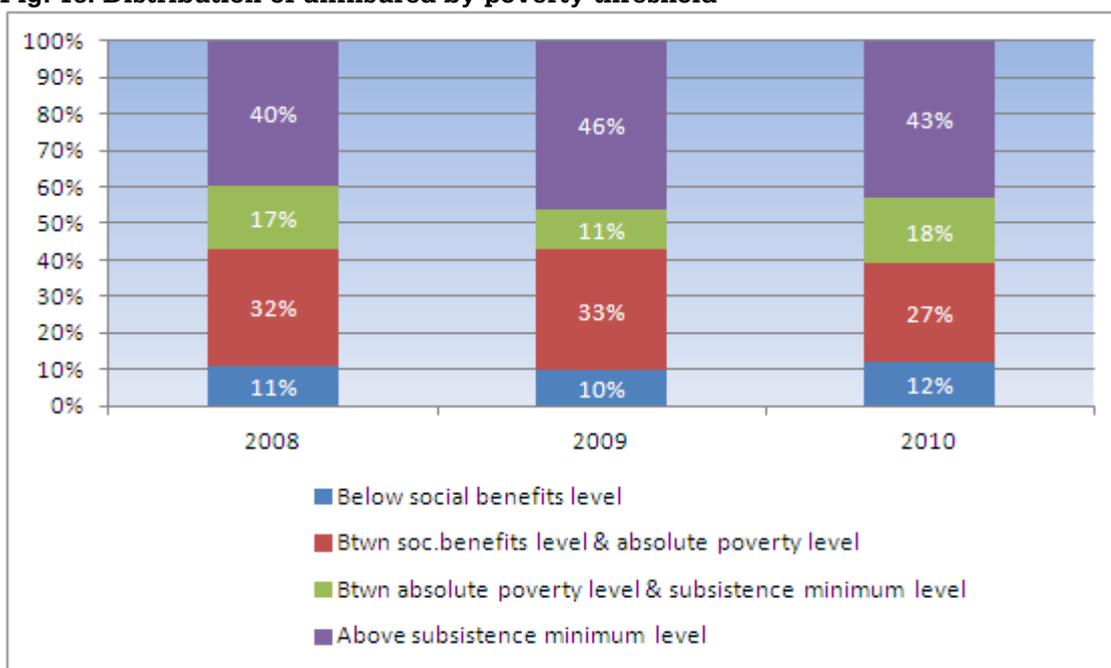
**Fig. 15: Distribution of uninsured by income quintile**



Source: Based on NBS data (10)

More than half of the uninsured population (57% in 2010) has a per capita household monthly income below the subsistence minimum level: 1373.4 Lei or 111 USD in 2010 (see Fig. 16 and Table 14). A further 12% have a per capita monthly household income less than the threshold established for the social benefits system (530 Lei or 43 USD in 2010). This system was introduced in 2009, and since 2010 its beneficiaries have automatically received MHI. However, according to NBS household survey data, 12% of the uninsured (equivalent to more than 80 000 people) are those living in extreme poverty. This suggests that this group is not benefitting from the social assistance to which they are available, highlighting the lack of effectiveness of the social security policy.

**Fig. 16: Distribution of uninsured by poverty threshold**



Source: Based on NBS data (10)

**Table 14: Poverty thresholds (per capita monthly income, Lei)**

	2008	2009	2010
Social benefit level <sup>7</sup>	430	430	530
Absolute poverty level <sup>8</sup>	945.9	945.9	1015.9
Subsistence level <sup>9</sup>	1368.1	1187.8	1373.4

Source: Based on NBS data (10)

<sup>7</sup> Social benefit level or extreme poverty line - this threshold is currently part of the process of defining those individuals eligible for cash support under the Law on Social Support.

<sup>8</sup> Absolute Poverty Line: official poverty line calculated by NBS.

<sup>9</sup> Subsistence level: this threshold, calculated by NBS, represents the minimum volume of goods and services necessary to meet basic requirements, to provide health protection and to support vital human functions.

## **4. Evaluation of impact of health system reform on access to health care**

### **4.1 Evaluation of health care benefit package policy since 2004**

The main outcome of the 2004 reforms was increased accessibility to free health care for the population (1). This was achieved by increasing government funding for the health system in combination with significant revisions to previous state guarantees of free health care. Two detailed health care benefit packages were defined replacing the previous general formula found under the Law on Health Protection No. 411-XIII of 28 March 1995. The MHI benefit package for insured persons was reduced compared with previous guarantees, and the package for uninsured persons was defined as including family doctor consultations, public health services, and health care in life-threatening cases.

Of particular note is the inclusion in the MHI benefit package of reimbursable medicines for outpatient care (widely referred to as compensated medicines). With a low level of health financing compared with other former Soviet countries, the Republic of Moldova extended guarantees in terms of medicines, however in subsequent years there was a gradual move away from the principle of balancing state guarantees with available funding. The benefit package for the insured was significantly enhanced in comparison with the one defined in 2004 but these enhancements were not balanced with available funding. Importantly, there was no increase in government funding to accompany the extension of PHC benefits to the uninsured in 2010.

This divergence typically leads to a growth in unofficial payments which contributes to lower levels of transparency. There is substantial evidence of such payments in Moldova (see Tables 16 and 17 in Section 5.3). The extension of full PHC to the uninsured resulted in a large increase in demand for services, in particular for outpatient medicines which CNAM was obliged to reimburse. As a result, a further amendment to the legislation was made on 20<sup>th</sup> April 2011 removing entitlements to all compensated outpatient medicines for the uninsured, except those for diabetes and psychotropic medicine. This shows the extent to which the current pressure on government finances has magnified this divergence between benefits and available resources.

### **4.2 Changes in service usage overall and by insurance status, income, and location**

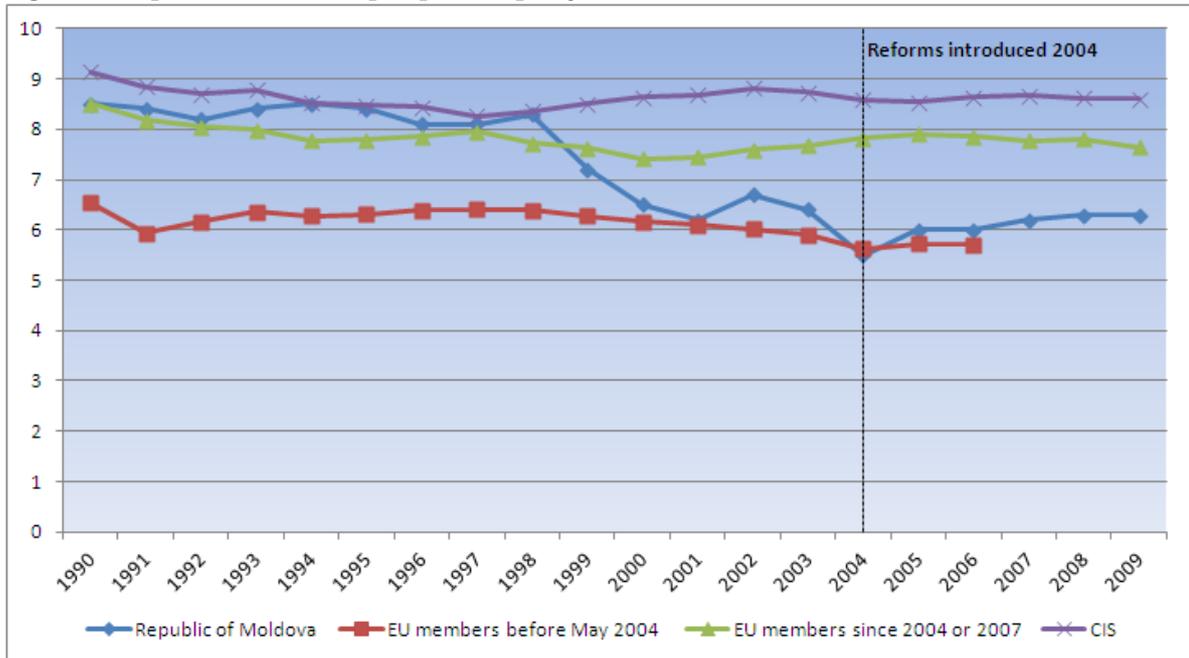
Figures 17 and 18 back up claims that at the overall system level, health financing reforms in Moldova have led to increased access to health services since 2004.

As a result of new legislation the number of citizens with access to free primary health care increased by 36% in 2010. CNAM expenditures on PHC, including compensated medicines, rose by 9.3% in 2010 in nominal terms. Taking into account an inflation rate of 11.1%<sup>10</sup> in 2010, the funding of PHC in real terms was practically unchanged. Given the growth in beneficiaries, the decision to extend PHC to the uninsured effectively meant a reduction in per capita funding. Official data indicates that the number of per capita family doctor visits per citizen increased from 2.8 in 2009 to 2.9 in 2010 or by 3.6% only. The share of family doctor visits of insured persons in all visits has reduced, but only marginally, from 94.5% to 92.9% (17). According to NBS household survey data, the share of uninsured persons visiting a family doctor in 2010 increased slightly over 2009, from 6.5% to 6.8%, while uptake by the insured has increased far more significantly (see Fig. 19). This raises a number of issues which policy-makers need to understand if the new legislation is to be effective.

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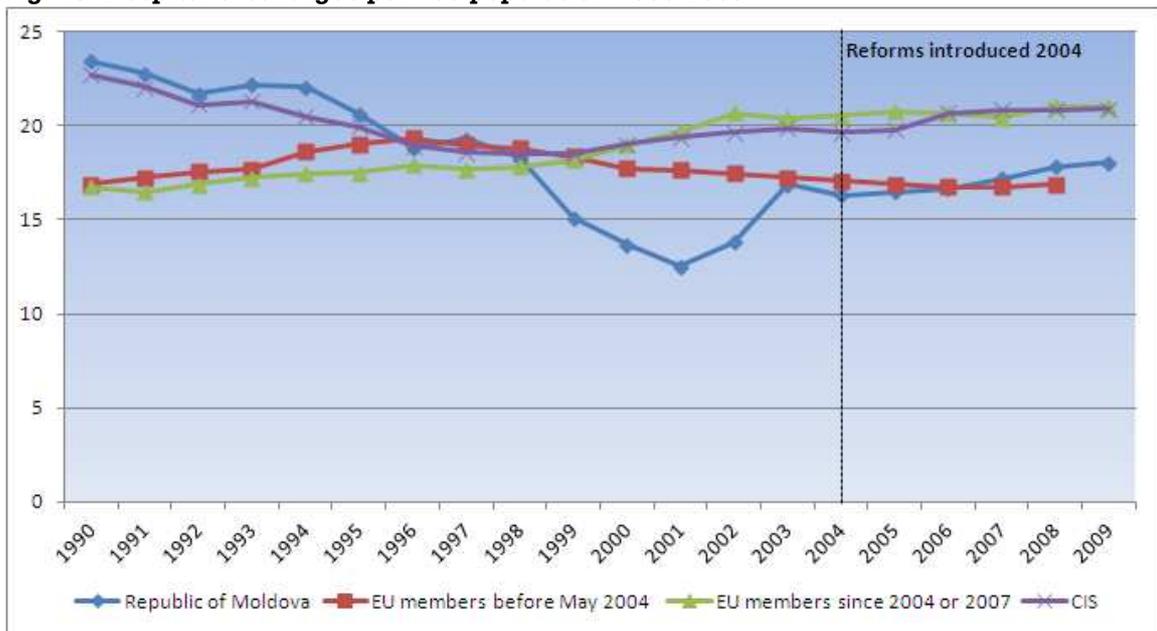
<sup>10</sup> GDP deflator index.

**Fig. 17: Outpatient contacts per person per year 1990-2009**



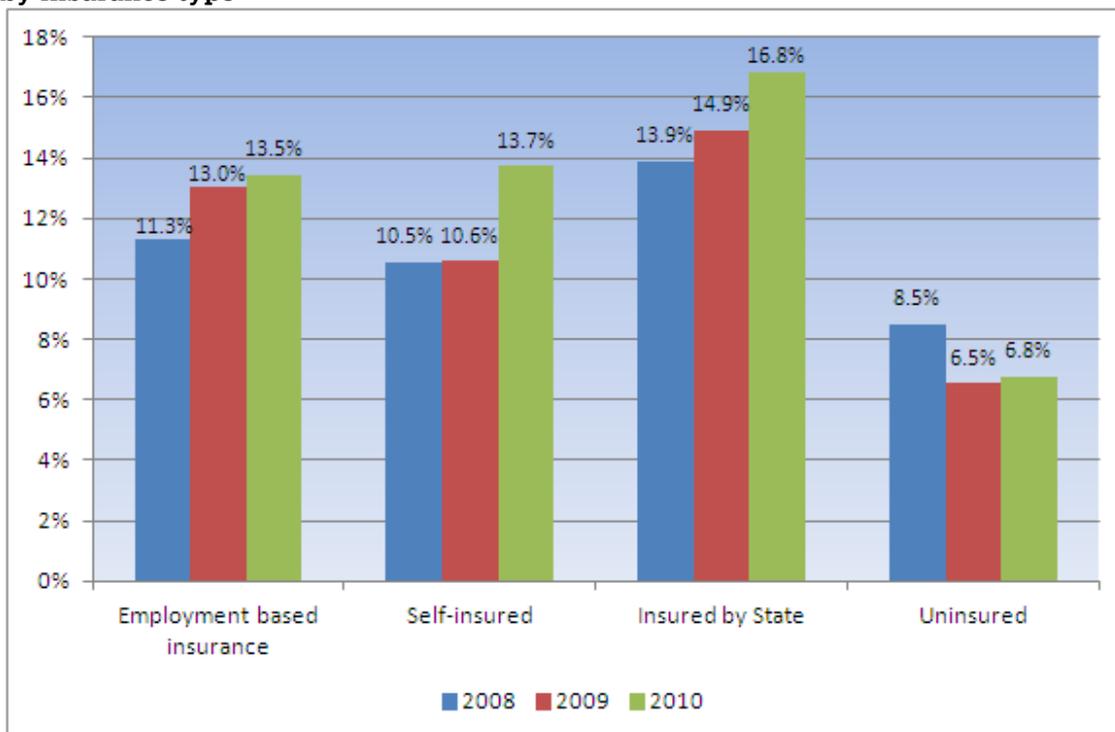
Source: WHO European Health for All Database 2011 (12)

**Fig. 18: Hospital discharges per 100 population 1990-2009**



Source: WHO European Health for All Database 2011 (12)

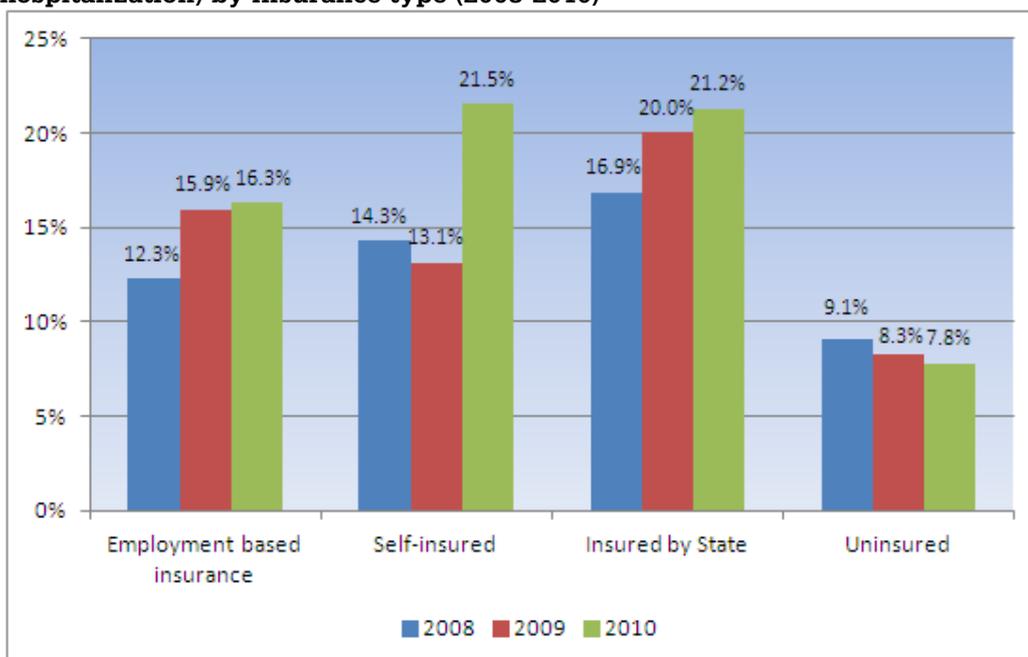
**Fig. 19: Share of population visiting medical centres and family doctors in the last four weeks by insurance type**



Source: Based on NBS data (10)

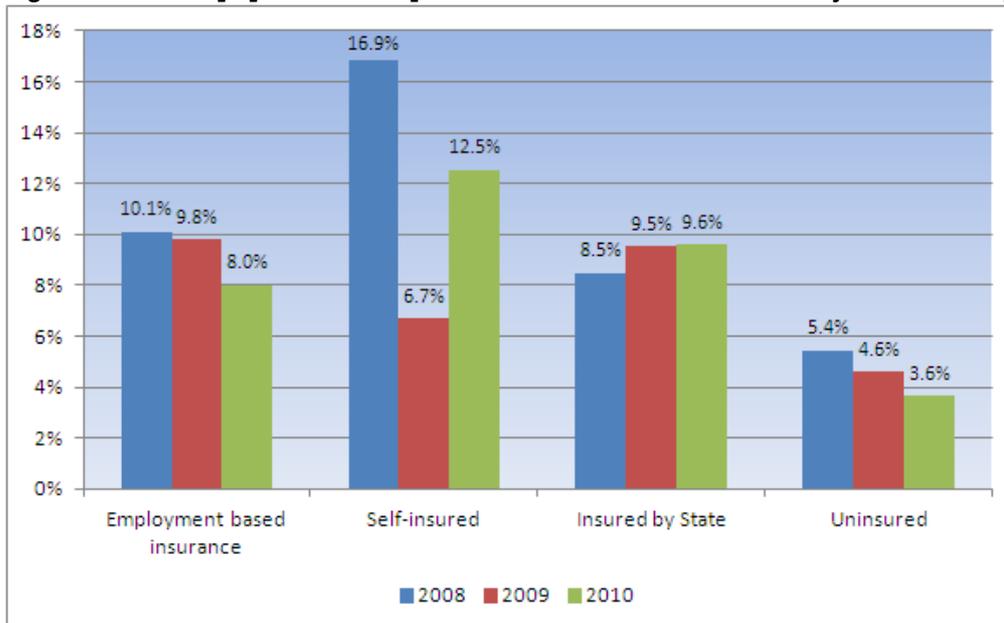
Figures 20 and 21 show how utilization of services changed between 2008-2010 and how it varies between different categories of the insured. Fig. 20 refers to those seeking any type of health service, the position of the uninsured worsening in both 2009 and 2010, while improving for all categories in the insured population. Fig. 21 refers only to inpatient care, and the trend is similar although those insured and in formal employment have been using inpatient services less and less.

**Fig. 20: Share of population seeking health care in the last 4 weeks (including home visits and hospitalization) by insurance type (2008-2010)**



Source: Based on NBS data (10)

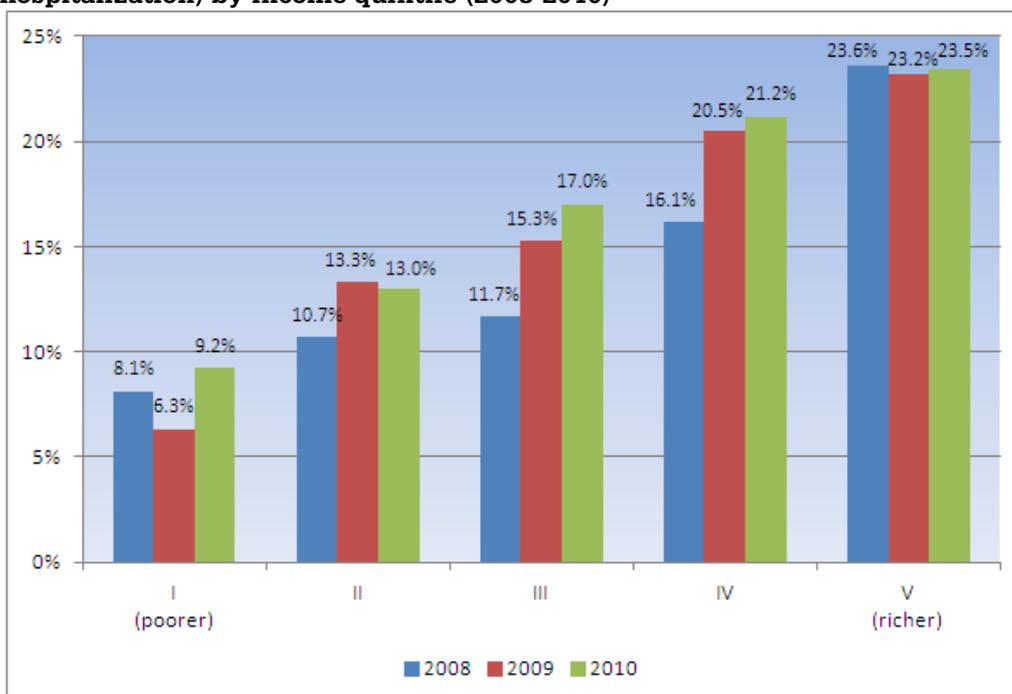
**Fig. 21: Share of population hospitalized in the last 12 months by insurance type (2008-2010)**



Source: Based on NBS data (10)

Fig. 22 confirms a widely observed relationship between income and health seeking behaviour. Those in the richer quintile seek health care more frequently than those less well-off, and substantially so, to a factor of almost three. Such disparities in access to health care reflect the limitations of the 2004 reforms, and deserve serious attention and concerted effort by the Government.

**Fig. 22: Share of population seeking health care in the last four weeks (including home care and hospitalization) by income quintile (2008-2010)**



Source: Based on NBS data (10)

Table 15 disaggregates health seeking behaviour by those living in urban and rural areas between 2008 and 2010. Data refers to the four weeks preceding the survey. Interestingly, the rate of increase in utilization of all health services was much higher for rural citizens (an increase of 30% in 2010 compared with 2008) than urban dwellers. Given that inpatient care decreased for the urban-based population and remained constant for rural dwellers during this period, the increase in utilization by rural residents is due to greater use of PHC and other outpatient services.

**Table 15: Share of population seeking health care, by location (2008-2010)**

	2008	2009	2010
Health care services in the last 4 weeks			
Urban	17.4	19.3	19.5
Rural	11.4	13.7	14.8
Inpatient care in the last 12 months			
Urban	9.4	9.0	8.1
Rural	7.6	7.9	7.6

*Source:* Based on NBS data (10)

Figures 19, 20 and 21 demonstrate the persistent inequities in the Moldovan health system with the uninsured and those in the lowest income quintiles (in many cases the same household, see Fig. 15) with significantly lower utilization of the health system than the insured and those in higher quintiles. In 2010, there does appear to be some improvement for the vulnerable groups in terms of accessing PHC services, but this is something which needs to be closely monitored.

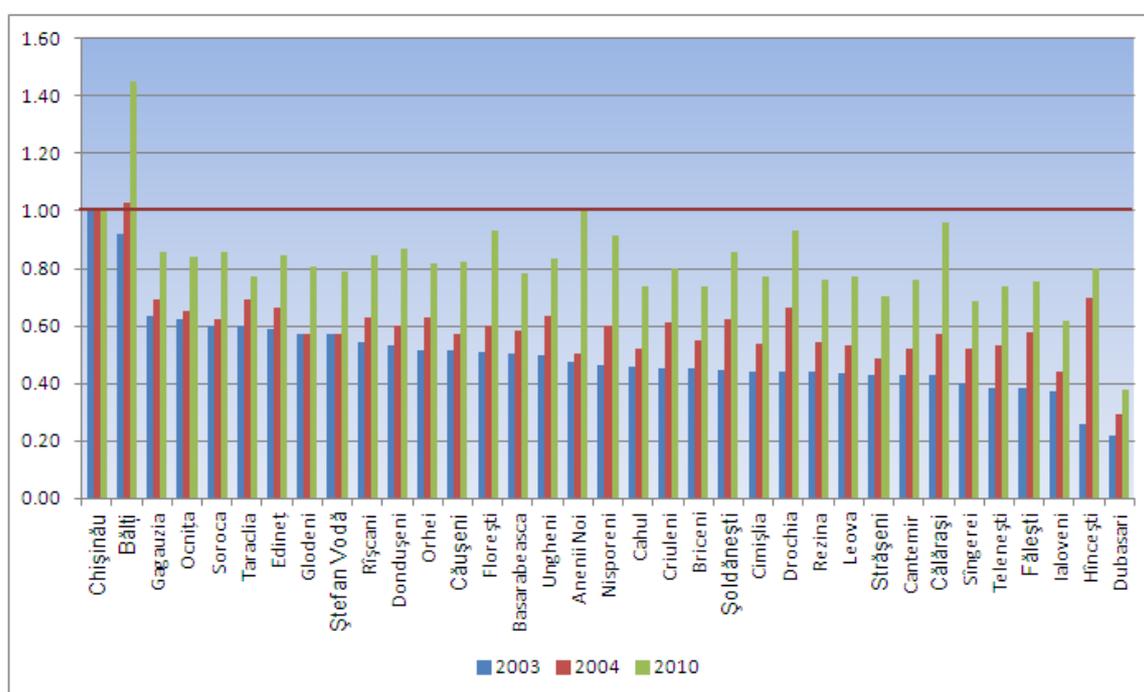
## 5. The impact of health financing reform on financial risk protection and equity in finance

### 5.1 Per capita government health expenditure across rayons

Prior to 2004 the pooling of government health funds was decentralized to the rayon level and partly overlapped with pooling at the national level. Under this system, government health spending was highly unevenly distributed across rayons with per capita budget funding differing across rayons in 2003 by a factor of 4.6; when the two main cities Chisinau and Balti were excluded this factor reduced to 2.9. The reforms of 2004 led to a reorganization of pooling into a centralized national fund managed by CNAM. Regional differences in per capita public funding of health care decreased within the first year of introducing MHI to a factor of 3.5, or 2.4 when Chisinau and Balti are excluded (see Fig. 23). The figure increased slightly to 3.8 in 2010 (or 2.4 without Balti and Chisinau) which can be explained by the low and very small increase in per capita health funding found in Dubossary Rayon which stands at only 38% of the Chisinau level.

The Gini Coefficient is a more formal measure of inequality. Using this measure to the same data, inequality in spending across rayons reduced from 0.209 in 2003 to 0.141 in 2004, and significantly further to 0.096 in 2010. Overall, the centralization of government funds has had a positive outcome for equity in per capita government expenditures on health across rayons.

**Fig. 23: Changes in per capita government health expenditures by rayon (Chisinau = 100%)**

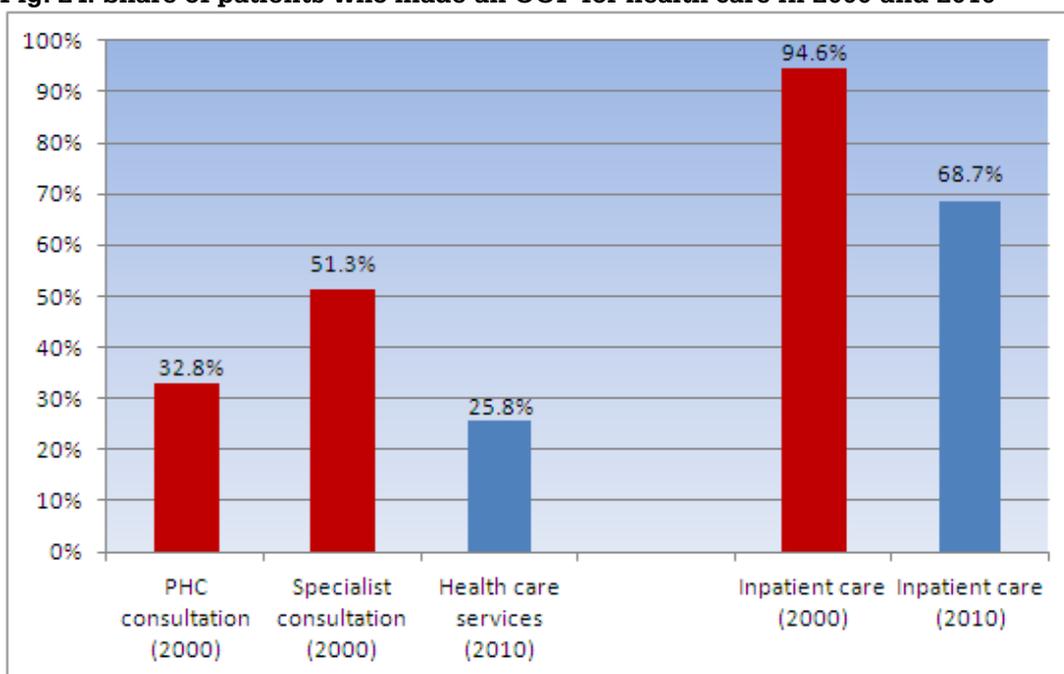


Source: author calculations based on MOH data

### 5.2 Prevalence and extent of OOPs

Whilst at the system level there has been little change in the balance between public and private spending since the 2004 reforms (see Fig. 5), other evidence suggests that the magnitude of out-of-pocket payments (OOPs) has reduced. The prevalence of OOPs was estimated by the Multiple Indicator Cluster Survey (nationally representative with a sample size of 11 592 households) conducted in Moldova between July-September 2000 with financial support from UNICEF (19). Results indicate that 32% of citizens seeking primary care consultations paid for them, 51.3% of patients paid for specialists, and practically all hospital patients paid for medical services and for medicines during inpatient treatment. NBS household survey data shown in Fig. 24 demonstrates that in 2010 the share of patients who paid for any type of health service is lower than in 2000, and significantly so.

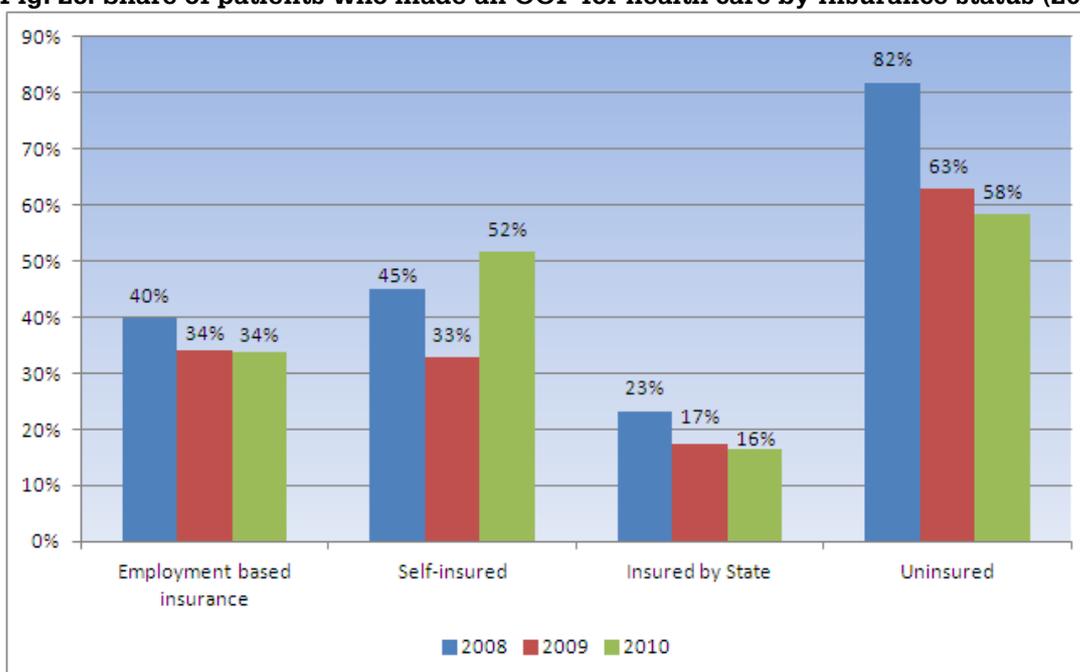
**Fig. 24: Share of patients who made an OOP for health care in 2000 and 2010**



Sources: Berdaga *et al.* (19); Based on NBS data (10)

As expected the uninsured are more likely to make an OOP than the insured, with 58% doing so in 2010 (see Fig. 25). However there is also, interestingly, a significant difference between the different categories of insured. Those insured by the State are least likely to make an OOP (16%), with employees more likely (34%) and the self-insured at a level similar to the uninsured. It should be noted that these figures have been decreasing since 2008 for all groups except the self-insured where there was a sharp increase in 2010. Overall, this probably reflects the impact of the financial crisis on the ability to pay of the population.

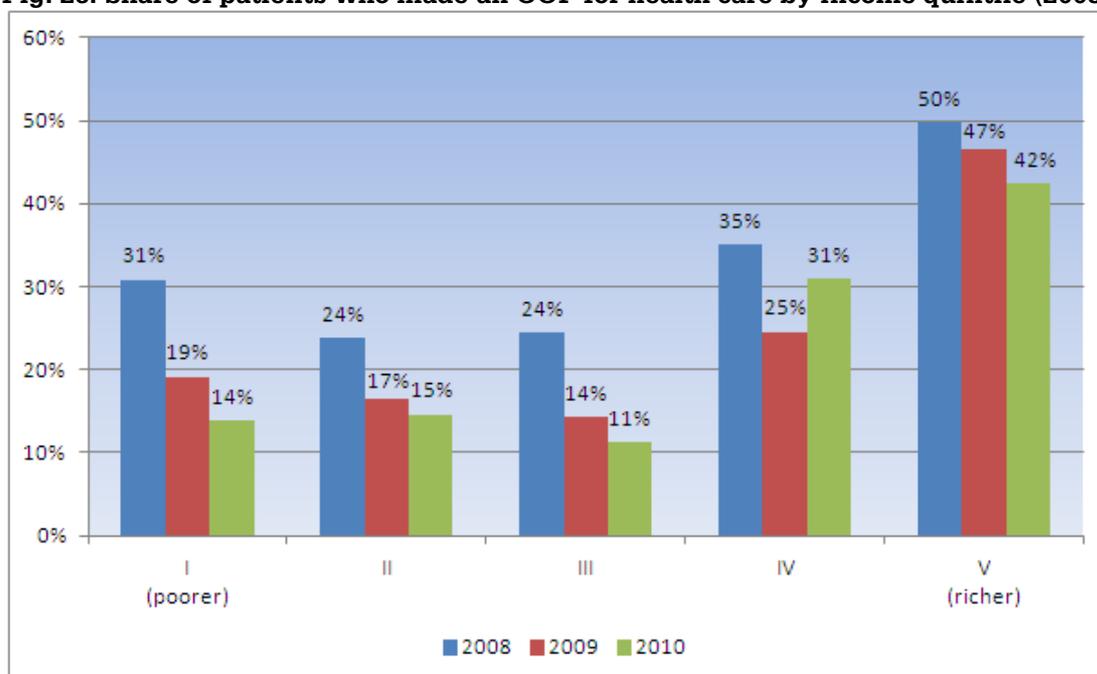
**Fig. 25: Share of patients who made an OOP for health care by insurance status (2008-2010)**



Source: Based on NBS data (10)

Fig. 26 shows variation in the share of patients making OOPs across income quintile groups. Levels are similar across poorer quintiles I, II and III, but much greater for the wealthier quintiles reflecting their greater ability to pay. In all quintiles except IV there was a significant fall in 2010; the rate of decrease was greatest in quintile 1 (the poorest), but the fact that the decrease in 2009 was greater than in 2010 suggests that the financial crisis has had a greater effect than the extension of free health care.

**Fig. 26: Share of patients who made an OOP for health care by income quintile (2008-2010)**



Source: Based on NBS data (10)

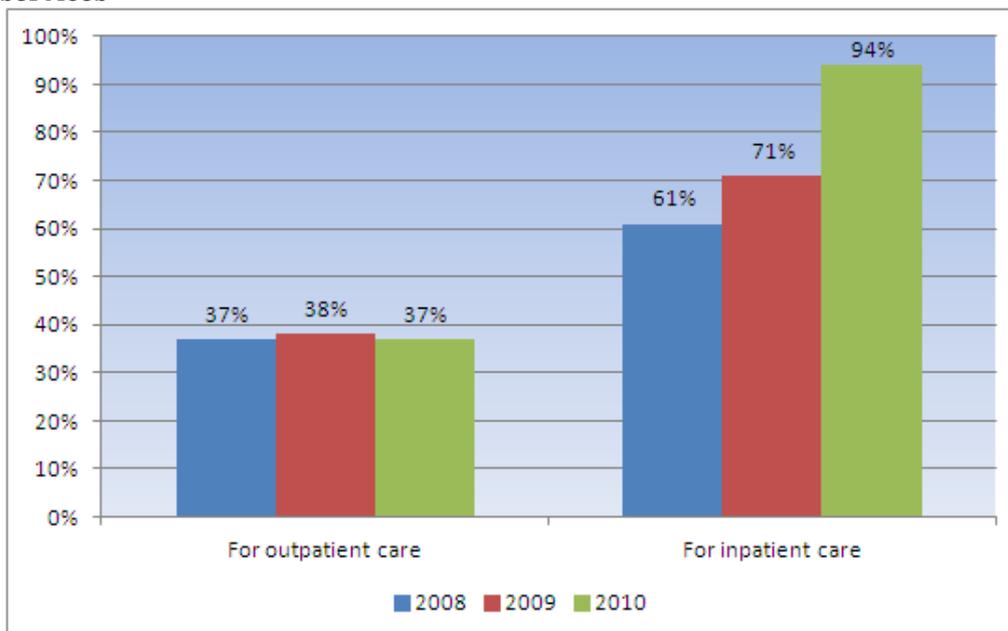
### 5.3 Prevalence and magnitude of informal payments

Fig. 27 provides clear evidence that informal payments are widespread in Moldova; in 2010, 37% of patients who made OOPs for outpatient care made an informal payment with a staggering 94% making such payments for inpatient services, a figure dramatically higher than in 2009. This trend probably reflects the greater ability of hospital physicians to charge patients to compensate for the real term decrease in their salaries as a result of the financial crisis.

Fig. 28 shows how the frequency of payments varies by insurance status. The uninsured are least likely to make an informal payment which is to be expected as in most cases they must pay officially. Interestingly, however, of those patients insured by the State who made an OOP in 2010, 57% made an unofficial payment, with lower but nevertheless significant shares of those in formal employment and those who self-insure also making an unofficial payment.

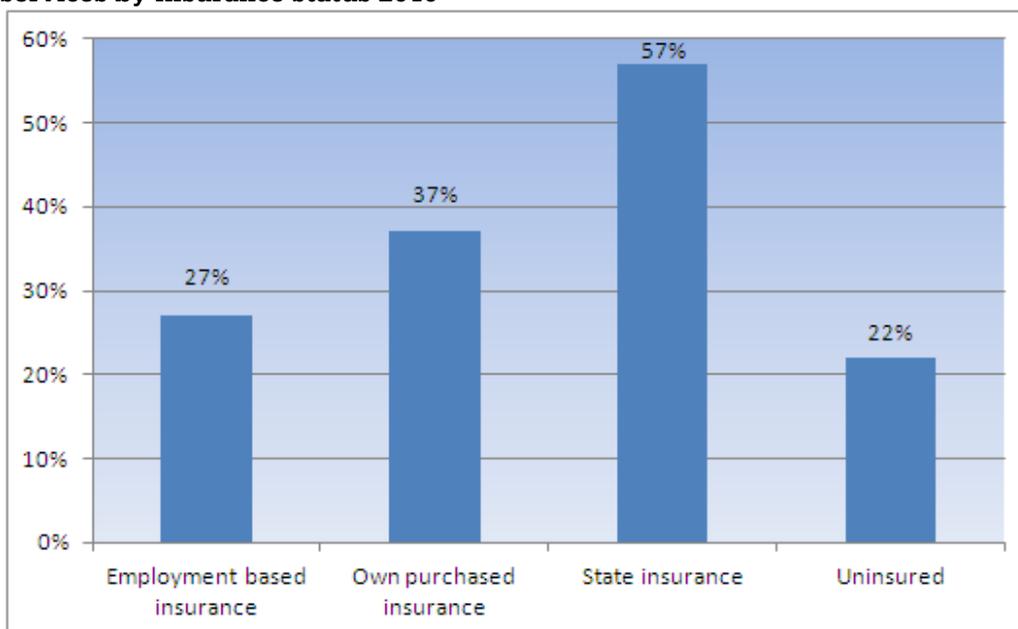
Tables 16 and 17 provide the same information as in Figures 27 and 28 but in more detail, showing OOPs for different types of health care in 2008-2010 separated out by type of OOP, urban versus rural, and insurance status/type. All categories of insured except self-insured and uninsured reduced their payments in 2009. In 2010 employees and self-insured increased their expenditure, but on the contrary, those insured by the State and the uninsured continued to reduce levels of OOPs (see Table 16).

**Fig. 27: Share of patients making an informal payment amongst those who paid for health services**



Source: Based on NBS data (10)

**Fig. 28: Share of patients making an informal payment amongst those who paid for health services by insurance status 2010**



Source: Based on NBS data (10)

**Table 16: Per capita monthly OOP by service type (Lei)**

	Total expenditures			of which official payment			of which informal payment		
	2008	2009	2010	2008	2009	2010	2008	2009	2010
<b>Outpatient care</b>	7.06	4.77	6.28	4.93	3.79	4.36	2.13	0.98	1.92
<b>Inpatient care</b>	3.4	6.8	4.9	2.0	3.6	0.6	1.4	3.2	4.2
<b>Dental care</b>	6.9	14.7	4.7	6.25	14.66	4.65	0.63	0.00	0.01
<b>Medicines</b>	51.6	61.0	62.1	-	-	-	-	-	-

Source: Based on NBS data (10)

**Table 17: Per capita monthly OOP for outpatient care by location & insurance status (Lei)**

		Total expenditures for outpatient consultations			of which official payment			of which informal payment		
		2008	2009	2010	2008	2009	2010	2008	2009	2010
<b>Residence area</b>	Urban	8.79	6.16	10.50	5.87	5.05	7.84	2.92	1.11	2.66
	Rural	5.78	3.76	3.22	4.24	2.87	1.83	1.54	0.89	1.39
<b>Type of insurance</b>	Employment based insurance	8.59	4.78	11.87	6.39	3.70	8.33	2.20	1.08	3.54
	Own purchased insurance	4.43	5.79	27.68	2.77	0.61	15.71	1.66	5.18	11.98
	State insurance	3.96	3.47	2.56	1.42	2.68	1.70	2.53	0.79	0.86
	Uninsured	12.67	7.40	7.16	11.50	6.39	5.29	1.16	1.01	1.86
<b>Total</b>		7.06	4.77	6.28	4.93	3.79	4.36	2.13	0.98	1.92

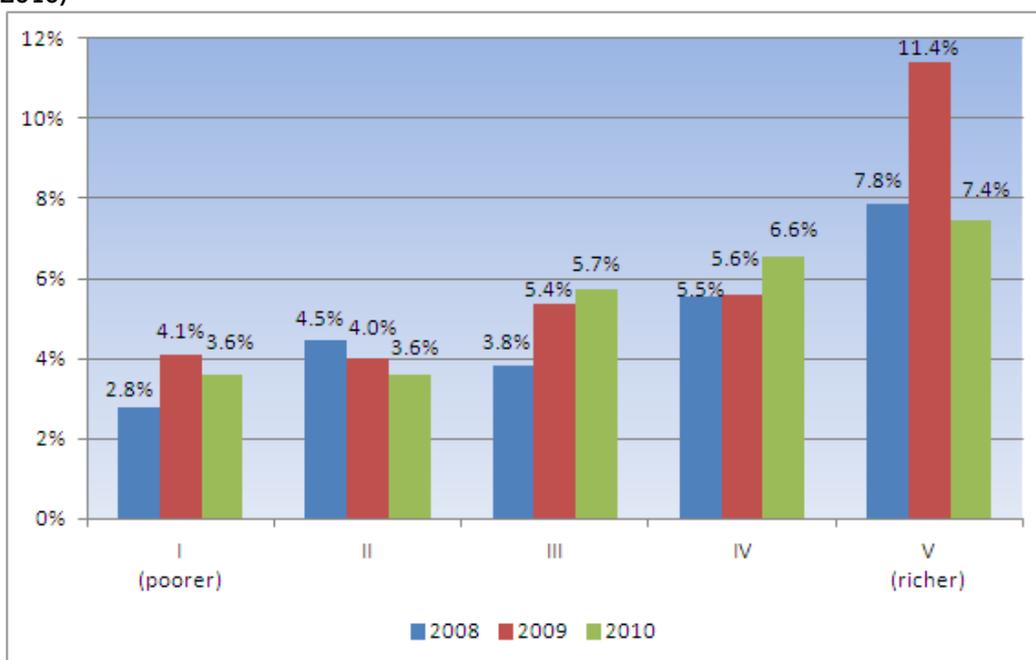
Source: Based on NBS data (10)

In summary, these data show that informal payments are being made systematically across the health system, and need tackling to ensure transparency for patients over their rights and obligations in terms of making payments when accessing health services. Many countries have faced, and continue to face this problem, to which there is no simple single solution. However, the broader approach of ensuring that state guaranteed benefits and funding made available is important to mitigate this issue.

#### 5.4 OOPs disaggregated by income quintile

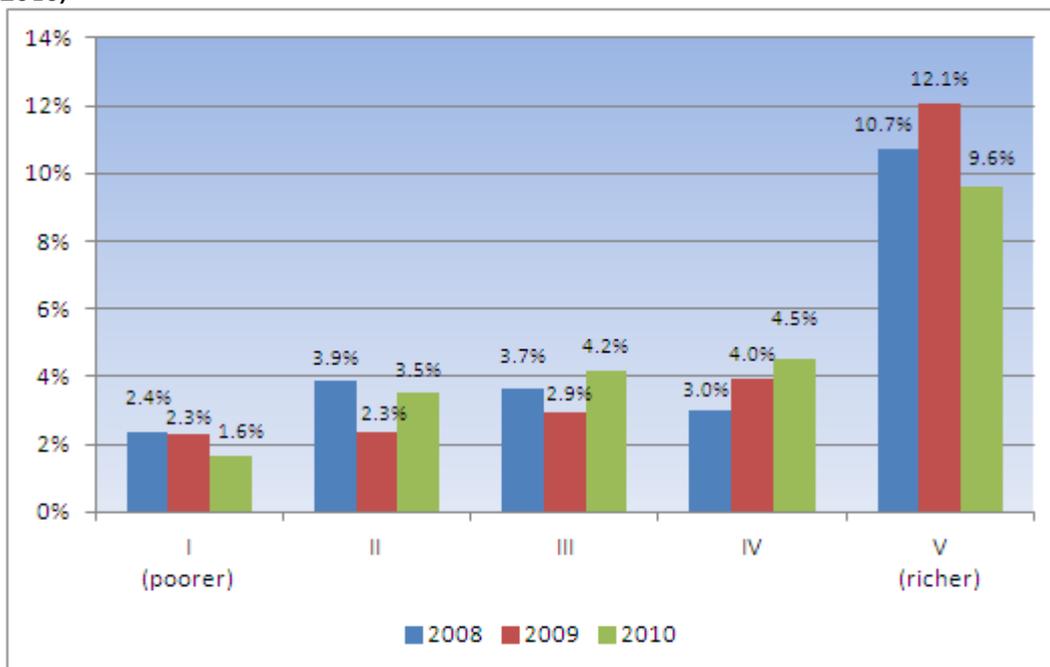
The wealthier a Moldovan citizen is the greater the share of their income they spend on health care (see Fig. 29). The fifth income quintile (i.e. the wealthiest) spends twice as much of its income as the first quintile (the poorest) towards health care. The difference is even more pronounced for the uninsured (see Fig. 30) with a significant gap between the fifth quintile and the other four.

**Fig. 29: Health expenditure as a % of per capita household income, by income quintile (2008-2010)**



Source: Based on NBS data (10)

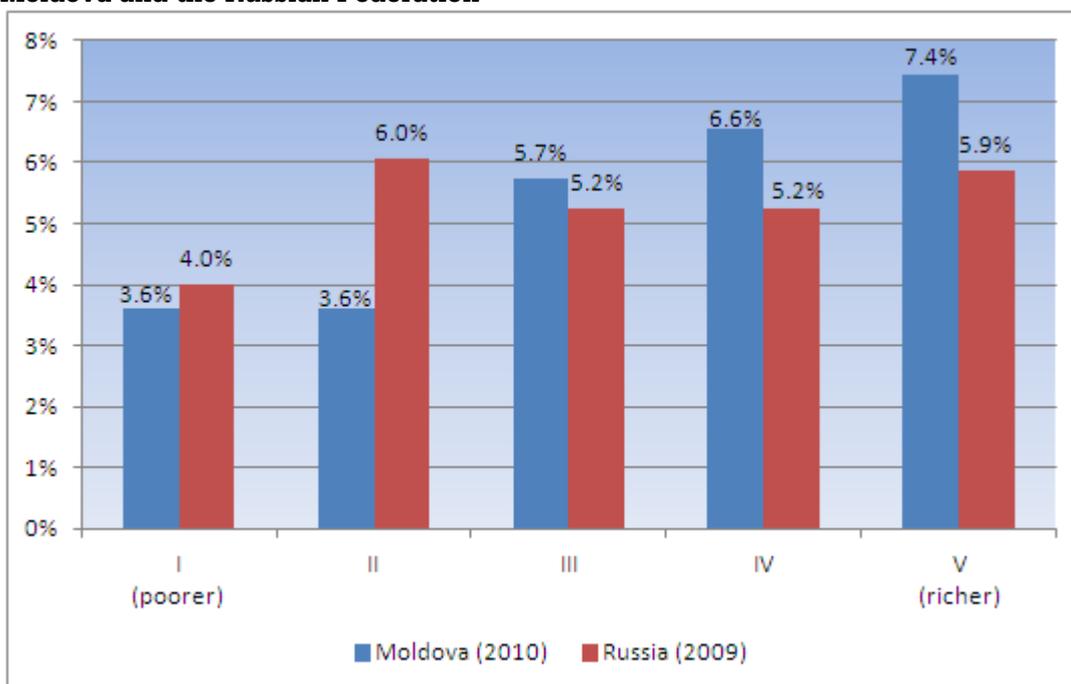
**Fig. 30: Health expenditure as a% of per capita household income amongst the uninsured (2008-2010)**



Source: Based on NBS data (10)

This trend of increasing health expenditure as incomes increase is not typical of post-soviet countries. For example in the Russian Federation, while the first quintile (the poorest) spends the lowest share of household income on health and thus is similar to Moldova, the share of income spent does not increase markedly with increase in income (see Fig. 31).

**Fig. 31: Health expenditure as a% of per capita household income by income quintile in Moldova and the Russian Federation**



Source: calculations Based on NBS data (10) and Russian Longitudinal Monitoring Survey 2009

Thus, in Moldova the wealthier seek health care more frequently and spend more not only in absolute terms, but also in relative terms, as a percentage of their income. The distribution of health care utilization and

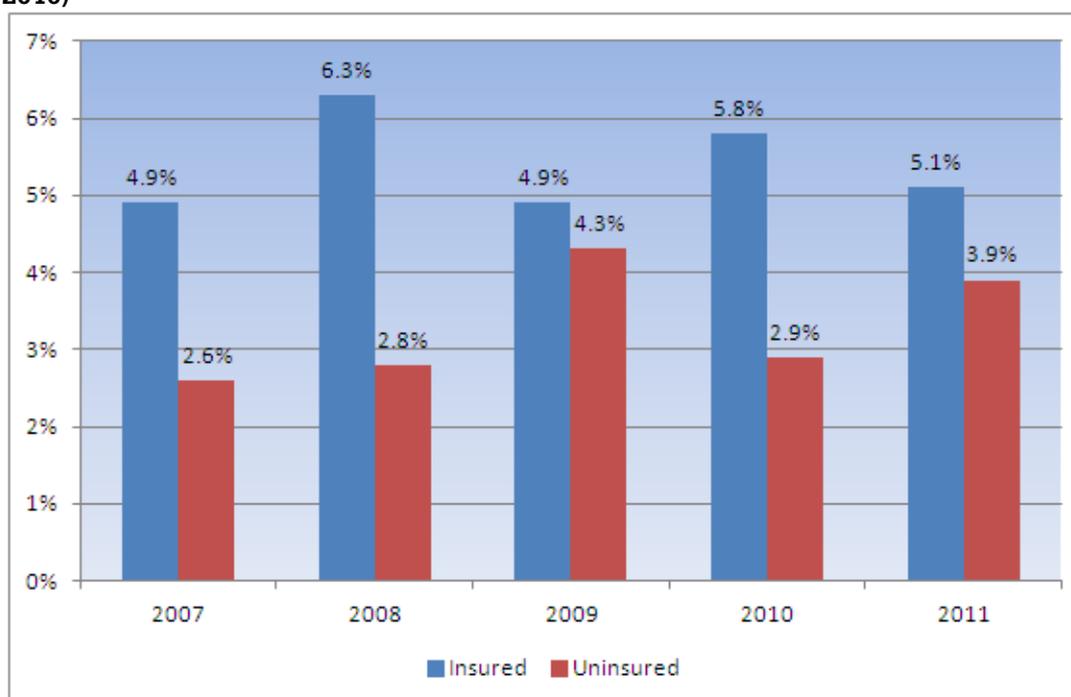
expenditure is an indicator of economic barriers to accessing health care experienced by poorer Moldovan citizens. Figures 32 and 33 present the latest data in terms of levels of catastrophic spending, a WHO methodology used to identify those households spending more than 40% of non-food expenditures on health services. Empirically, this is shown to be the point at which spending becomes a serious problem i.e. is catastrophic, for households and can indicate that households are being pushed into poverty as a result of having to pay for health care.

**Fig. 32: Catastrophic levels of health spending by income quintile (2007-2010)**



Source: Negrută (15) with updated analysis based on NBS data (10). 2011 estimates are preliminary.

**Fig. 33: Catastrophic levels of health spending in households with and without insurance (2007-2010)**



Source: Negrută (15) with updated analysis based on NBS data (10). 2011 estimates are preliminary.

There are, immediately, two clear messages from the data; first that richer households are more likely to suffer from catastrophic levels of OOPs, and second that the insured are more likely to face catastrophic health spending. Both these results are the opposite of what one would expect, but are not uncommon in many low and middle income countries. Having a higher income, and being insured, are two factors which increase the likelihood that an individual will seek care when they feel ill. Once in the health system, those individuals may need to undergo various diagnostic procedures and be prescribed medicines that are not included in the benefit package and for which they must hence pay as an OOP. This situation is exacerbated where the regulatory environment is weak, and where supplier-induced demand takes place i.e. the tendency for health professionals to require diagnostic and other procedures at least in part to generate more income.

Financial protection in health is a fundamental goal of health systems, and a specific objective of health policy in Moldova. Whilst Fig. 32 has some positive elements in that levels of catastrophic spending are becoming less frequent amongst the poorest quintile, and are not being driven by lower levels of utilization (see Fig. 22), the figures are very high for the region, and hence this should be a priority policy issue for concerted action by Government.

## 6. Planned government reforms to health financing policy

In 2011 the Ministry of Health declared its intention to further advance reforms in the health sector with a strong focus on service delivery and health financing. This new programme of reforms has been elaborated during over the past year and was approved in March 2012 as the Roadmap “Accelerating Reforms: addressing the needs of the health area through investment policies” (20). The main agenda is to drive up the efficiency of health spending through reforms to the service delivery network, in particular to reduce the dominance of hospital care and ensure that those conditions which can be managed on an outpatient basis are in fact done so; the details are outlined in the National Hospital Masterplan 2009-2018. In addition, the Roadmap aims to address persistent inequities in access to services and in the financing of those services.

Four major issues related to health financing policy are identified in the document: i) the inadequate targeting of insurance subsidies towards the poor ii) stagnating levels of population coverage under the MHI programme iii) high levels of OOPs (both formal and informal), and lack of focusing of MHI funds on ensuring protection of citizens against the financial risk related to health services and iv) the lack of performance-related purchasing of health services. The document also refers to the deterioration in equity of financing and the use of services across the Moldovan population.

Short and medium term actions are detailed in the document with two health financing policy measures planned for 2012; i) boosting enrolment under MHI through greater enforcement, penalties, and flexibility in the payment of contributions, and ii) introducing DRGs (performance-related payment systems). Medium term measures (2013-2014) include i) the retargeting of subsidies towards the poor, ii) the introduction of coinsurance mechanisms and iii) the development and roll-out of performance-related payment systems. Two further measures are raised, one concerning the establishment of a health fund to manage “sin tax” revenues and to earmark these for public health interventions, and finally the strengthening of public-private partnerships. Whilst the planned actions seem an appropriate response to the current challenges in terms of health financing, the feasibility of their implementation is raises some questions. More details and comments on the proposed actions are detailed below:

1. Reorientation of budgetary resources for MHI contributions in favour of the poor, with contributions made by other population groups to be in line with ability to pay:
  - 1.1. Redirect State subsidies for MHI to cover 100% of the contribution for socially disadvantaged persons (based on the national absolute poverty threshold).
  - 1.2. Application of differentiated contribution rates to be taken by the remaining population groups, through the use of partial subsidies by the State.
  - 1.3. Integration of all those employed by government including for example the police, and foreign students paying fees for their training in Moldovan educational institutions, into MHI with contributions made accordingly.
  - 1.4. Co-insurance within the MHI system (insuring unemployed family members), by calculating a premium, as a percentage contribution, which will be levied while paying the salary.

These measures are in line with several of the recommendations made in a previous report (16). Re-targeting insurance subsidies on the basis of means-testing would contribute to fair financing, and is a reasonable way to use limited public funds more effectively in terms of protecting the vulnerable. This measure will not necessarily lead to increases in population coverage under MHI, however, depending on how those moving from *full* to *partial* subsidy are managed. For this group, a partial subsidy is planned, but could be difficult to implement both politically and in terms of the information required to assess incomes unless occupation is used as a proxy. One option may be to maintain the subsidy in absolute terms but require this group to make an additional contribution to fund the increased cost of the benefit package. Overall, however, the principles driving these measures are in line with the overall objective of increasing equity in health financing, and the strengthening of solidarity within the health system.

2. Improving MHI contributions collection mechanisms through the following measures:
  - 2.1. The development and implementation of a flexible mechanism of premium collection, in particular for the self-employed.
  - 2.2. Requiring the unemployed to contribute to MHI when making their income declaration for the respective fiscal year.
  - 2.3. Enforcing contribution collection through a variety of bureaucratic measures e.g. requiring proof of payment upon application for a driving licence, car liability insurance, identity documents,

residence permit for foreigners, as well as when purchasing firearms, registering commercial organizations, and when applying for a bank loan or other loans provided by micro-finance institutions.

- 2.4. Increase the penalty for underreporting or concealing MHI contributions through the application of a penalty three times higher than the MHI contributions lost as a result of such underreporting or concealment.

Discussion of the pros and cons of some of these measures can be found in Section 3.4 of a previous report (16). Increased flexibility in contribution payment mechanisms can make a large difference to those on very low incomes and with irregular (often seasonal) income. However, this approach must be combined with greater enforcement measures, which is in fact the plan, to avoid the potential downside that adverse selection may be exacerbated and non-poor citizens may be able to take greater advantage. Offering greater flexibility to those who are prepared to *automate* contribution payments is one recommended way forward.

Measures to further strengthen enforcement are welcome given that measures already taken appear to have had a marked effect on levels of enrolment. International experience shows that incentives have a limited effect relative to measures which strengthen compulsion, and which makes the system of MHI truly mandatory for all eligible citizens. The duty to insure should be based on the implementation of legislation rather than overreliance on financial incentives.

An earlier variant of the Roadmap envisaged the introduction of co-payment, with the uninsured to be charged per family doctor visit, and the insured required to make a copayment for all service levels. This proposal was presented as a specific commitment by the Government of the Republic of Moldova in the spring of 2011 partly in order to secure external financing for the sector. The main rationale for charging the uninsured was to restrict excessive demand for family doctor consultations following the declaration of free access for all, and to encourage the self-employed to purchase insurance by effectively increasing the financial risk of not being insured.

As a strategy to encourage the uptake of MHI, this approach is likely to be severely limited given the modest results achieved through the current policy of discounting premia. At the same time, the introduction of co-payments would increase the risk that the uninsured will forego important health care, and charging for PHC services may undermine broader reform efforts to strengthen the health system at this level. Hence a measure proposed to increase population coverage under MHI would run a high risk of reducing access to important health services for the uninsured.

### 3. Raising new public funds for health through sin taxes:

- 3.1. Establishment of a health fund, which will accumulate the financial resources generated from increased excises for tobacco products and alcoholic beverages, and will be used for funding public health measures, including health services that contribute to quitting smoking and alcohol abuse.

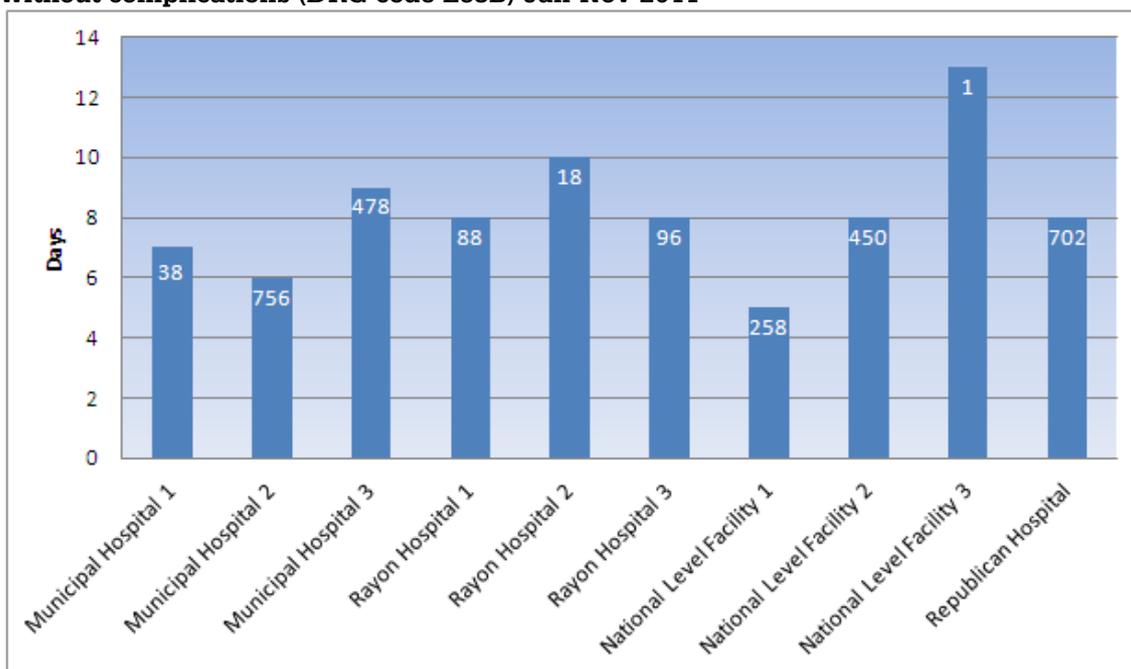
Sin taxes, in particular through the increase of excises for tobacco products and alcoholic beverages, are becoming increasingly common and have a dual purpose. First, they can be an effective public health measure affecting levels of consumption of the affected products. Secondly, they are a tax, and as such raise new funding for government. The decision on how to use newly raised funds is a separate issue which requires discussions with the tax authorities and Ministry of Finance; in this case, the Roadmap states that newly raised funds would be earmarked for the health sector, and indeed specifically for measures related to tobacco and alcohol services.

### 4. Development of performance-related purchasing of health services:

- 4.1. Development of selective contracting of health care providers taking service quality and performance standards into consideration.
- 4.2. Financing inpatient providers on the basis of Diagnostic Related Groups.
- 4.3. Purchasing a range of services e.g. tuberculosis control by community centres, community mental health services, early childhood intervention centres, rehabilitation services, palliative and social care services through new payment mechanisms such as per treated case, per assisted case, and per visit.
- 4.4. Introducing higher per capita tariffs in rural areas relative to urban areas, in particular for more disadvantaged areas from a geographic perspective.

These measures are closely connected to the agenda of reforming service delivery which is prominent in the Roadmap, and will be central to developing a positive incentive environment for the continual improvement of service quality, and the efficient use of government funds. Given the fiscal situation and political commitment to strengthening PHC, tackling inefficiencies within the health system is rightly the top priority. The National Hospital Masterplan sets out a vision to achieve this, and the data collected as part of a pilot project for DRGs illustrates why this is important (21). In addition to the substantial overlap in service delivery resulting from the continued existence of many large single specialty (mono-profile) facilities, and the ineffectiveness of this model of service delivery to deal with increasing levels of co-morbidity (22), it is clear that PHC services are currently not performing adequately. Figures 34 and 35 provide evidence that relatively simple and common health problems, in this case urinary tract infections and diabetes cases (both without complications), are presenting at hospital facilities and being admitted for significant periods of time<sup>11</sup>. While further investigation is required, in general these conditions can and should be managed on an outpatient basis and should only rarely require lengthy admissions to hospital.

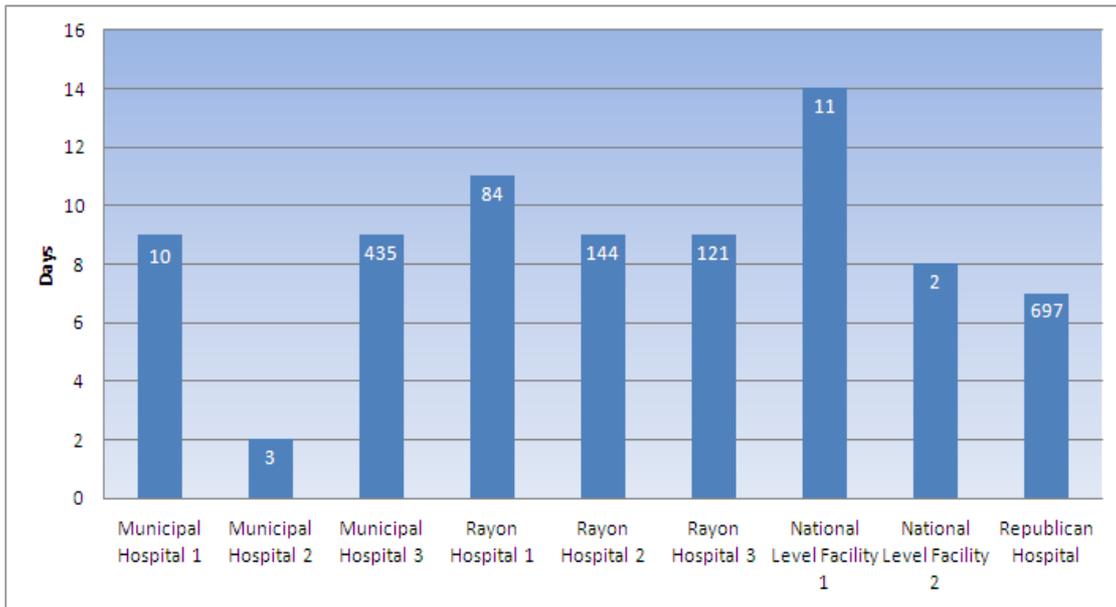
**Fig. 34: Average length of stay and frequency of cases of kidney and urinary tract infections without complications (DRG code L63B) Jan-Nov 2011**



Source: Author calculations based on (21)

<sup>11</sup> Numbers within the columns reflect the number of cases used for calculations.

**Fig. 35: Average length of stay and frequency of cases of diabetes without complications (DRG code K60B) Jan-Nov 2011**



Source: Author calculations based on (21)

Turning this picture around to ensure that relatively simple conditions are managed effectively at the PHC and outpatient specialist level, in turn producing efficiency gains and potentially significant savings for the health sector, will at a minimum require implementation of both the National Hospital Masterplan (including a more detailed clinical vision), and changes to the way that services are purchased e.g. ensuring that it promotes and reinforces changes in service delivery i.e. not paying for treatment being carried out unnecessarily at the inpatient level.

## 7. Summary and recommendations

- a) The principles of pooling and purchasing introduced in Moldova in 2004 i.e. the centralized collection of public funds for health care, a single national pool of funds, and a single purchaser of health care services, have proved effective in improving equity in the allocation of resources across the health system, and in improving financial protection for many insured people accessing services. These principles remain sound and do not require revision.
- b) In terms of revenue-raising policy, the principle of *equivalency* was introduced in 2004 under the MHI scheme, with government contributions for the non-working population and contributions by the working population linked to each other, with both connected to the cost of the benefit package. This principle distinguished MHI in Moldova from other countries and served as an effective instrument to balance benefits with available funding. In subsequent years, however, there was a divergence from these initial reform principles. The link between payroll and budget contributions was removed, although the latter remained fixed as a percentage of government spending, ensuring stability in revenues to CNAM for the purpose of contracting services.
- c) Over the same period, the benefit package for the insured was significantly enhanced but these enhancements were not balanced with available funding. As a result, benefits guaranteed by the State and the funds made available drifted out of balance. This divergence increases the risk of reduced access to health care and increased patient payments; there is evidence that unofficial payments are common across the health system and on the increase for inpatient care. Some corrections have recently been made, but further restoring the principle of balancing benefit with available funds to ensure transparency is necessary.
- d) The principal shortcoming of the 2004 reforms was the fundamental shift in the basis of entitlement away from being a citizen of Moldova to one based on having made a contribution under MHI. The obligation of the self-employed to contribute was not adequately enforced in the early years, but recent efforts to do so have had significant success. In 2004, 37.3% of the resident population was uninsured, a figure which in 2010 stood at 22.5% in 2010, but this figure remains too high.
- e) Since 2004 contributing to MHI has been the main way in which the population gains access to most health services, beyond a number of priority conditions for which access remained universal. In 2009 gaps in population coverage became a primary focus for health policy; poor households eligible for social assistance were automatically granted fully subsidized health insurance following new legislation. In 2010, further measures were taken with PHC extended to all the uninsured. As a result, access to services was increasingly based on citizenship rather than making a contribution to MHI. At the same time however, efforts to encourage uptake of insurance by the self-employed through discounts, which started in 2008, were further enhanced.
- f) Whilst these policy measures had a positive impact on population coverage rates, and on access to PHC for the uninsured, the effects have so far been modest. In 2010, the number of self-insured increased by 30.4%, reaching 33,500 but this still represents only 4.2% of the uninsured. Relative to the depth of the discount (up to 75% of the contribution amount) this demonstrates the limitations of this policy. Twelve per cent of the uninsured in 2010 had a per capita monthly household income lower than the threshold to qualify for social assistance indicating that the social safety net policy in Moldova is not working effectively.
- g) In addition to the policy of offering discounts, administrative pressure on the self-employed to comply with the legislation was strengthened in 2011, including the threat of court action. As a result, the number of self-insured increased by 57% in 2011, and shows that the strategy of tighter enforcement is more effective than measures to encourage the voluntary decision to contribute to MHI.

- h) As a result of new legislation, the number of citizens with the right to access free PHC increased by 36%, but was not accompanied by a concomitant growth in available funding. This led to an increase in per capita visits to a family doctor from 2.8 in 2009 to 2.9 in 2010 or by 3.6% only. The share of uninsured increased very little, from 6.5% in 2009 to 6.8% in 2010, despite the fact that new legislation was targeted at this group.
- i) In the last decade the share of patients making OOPs for outpatient services decreased at least 1.3 times, with a greater decrease for inpatient care (1.4 times). This is a clear positive impact of health financing reforms in Moldova. However the absolute prevalence of OOPs remains too high: 25.8% of those seeking any type of health care and 68.7% of those seeking inpatient care in 2010. Informal payment practices remain widespread: 37% of patients paid for outpatient care and 94% of those who paid for inpatient care made an informal payment in 2010. Large scale OOPs and informal payments are one of the major challenges facing the health system in Moldova, with levels of catastrophic spending, which is a key measure of financial protection, stubbornly high and for many groups (including the insured) on the increase. The introduction of official payments can be useful as part of a strategy to tackle unofficial payments, although this objective needs to be clearly stated and carefully implemented to ensure other reforms, such as reorienting service delivery towards PHC and outpatient care, are not undermined.
- j) Access to health services clearly rises with income representing a persistent inequity in the health system. Better-off groups are far more likely to seek health care. Moreover, those in the wealthiest (fourth and fifth) quintiles use health care almost twice as often as those in the first and second (poorest) quintiles. The wealthier Moldova citizens are, the greater the share of their income they spend on health care. This observation that the financial burden of accessing care increases with incomes is not typical for post-soviet countries, although it is observed in other parts of the world. The distribution of health care utilization and expenditure is an indicator of economic barriers to accessing health care experienced by poorer Moldovan citizens, and again represents a significant inequity within the system. This is a serious challenge for the Government and indicates that many further efforts are required to make new legislation effective.
- k) The deepening of discounts to motivate the self-employed to insure does not make sense; currently it has a negative effect on fair financing, with the better-off taking advantage of the discount far more than poorer individuals. For poor persons, extending State guarantees is the only effective policy measure, whilst for the non-poor only greater enforcement in both general tax collection and contribution to MHI will be effective.
- l) A key challenge now is to further restore and continue to maintain the balance between government-funded benefits and available funding. Subsequent steps should include detailing the benefit package for outpatient specialized care and inpatient care more clearly, to bring them into balance with available resources.
- m) Finally, the Republic of Moldova has shown that it can be a global leader in health system reforms, and in particular health financing reforms, particularly in the context of achieve universal coverage. Reforms implemented to date have resulted in significant improvements, but the reform process is a continual rather than an ad hoc one. Reforms proposed in the recently approved Roadmap, which aim to address both inefficiencies in service delivery as well as health financing issues, and which are guided by a clear policy framework, point in the right direction and will be critical in order to deliver greater progress on key performance indicators over the coming years for the people of the Republic of Moldova.

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