

## 7. Assessment of the health system

The core challenges for the Ukrainian health system remain the limited protection of the population from the risk of catastrophic health care costs and structural inefficiency in the health system, which is supported by an inefficient system of health care financing. Health system weaknesses are also highlighted by increasing rates of avoidable mortality.

Patients and doctors alike recognize the need for fundamental reform of the Ukrainian health system; however, government reform efforts to date are viewed negatively and popular mistrust of doctors is strikingly high. Improving the quality of care is necessary as this is the main popular concern but also because improving the quality of care would save lives. To rebuild trust in the system it will also be necessary to tackle the issue of informal payments in a way that moves beyond sloganeering about corruption to tackling the underlying issues of low wages and popular perceptions. Concerns about affordability are linked to the prevalence of informal payments and the cost of pharmaceuticals for treatment and these concerns in themselves constitute a barrier to access.

### 7.1 The stated objectives of the health system

In 2002, Parliament ratified the long-term comprehensive programme “Health of the Nation for 2001–2011”, the aims of which were given as: improving the demographic situation; improving and strengthening the health of the nation; improving the quality and efficiency of health care; and ensuring social equity and the right of citizens to health protection. Moreover, every government on coming to power has announced its desire to reform the health system, but an explicit health strategy outlining the vision for such reforms has not yet been published.

After the Orange Revolution in 2005, the government approved a programme of activities called “Towards the People” (Cabinet of Ministers Resolution No. 115 of 4 February 2005), which listed the government’s responsibilities

including: the provision of health care free at the point of use; strengthening primary care (including its financing); and moving to an insurance-based system of health financing. The programme was further developed through President Yushchenko's social initiatives, which were presented to society in 2007, and included increasing the official salary of state employees (including health care workers) and the development of rural health care. However, these documents remained declarative and were not fully implemented (Lekhan, Rudiya & Richardson, 2010).

In 2010, the then Prime Minister of Ukraine, Yulia Tymoshenko, approved the fundamental conceptual direction for health care reforms (Cabinet of Ministers Resolution No. 208 of 17 February 2010). After a change of power following elections in 2010, as part of President Yanukovich's Programme of Economic Reforms for 2010–2014, titled "Wealthy society, competitive economy, effective state", health care reforms were introduced in order to improve population health, as well as to provide equitable and fair access to services of reasonable quality for all citizens. Among the main aims of the reforms were: increasing the quality and accessibility of services; improving the efficiency of state financing; and encouraging the population to embrace healthier lifestyles. It was predicted that the full implementation of these reforms would significantly reduce premature mortality (including infant and maternal mortality and deaths from TB); reduce the share of people who could not access care for financial reasons; and reduce informal payments in the system.

In parallel to the implementation of the economic reform programme, in 2011, work began on a government-wide programme, "Health 2020: the Ukrainian dimension", which was oriented towards promoting and strengthening population health and increasing equity in the financial burden associated with accessing medical services through the future development of the state health system and strengthening health services. The draft programme was approved by the government and, in 2013, a draft law for its implementation was put before Parliament, but it was withdrawn shortly afterwards and the programme's fate is not known.

## 7.2 Financial protection and equity in financing

### 7.2.1 Financial protection

Out-of-pocket spending on health in Ukraine is high. In 2012, 40.2% of THE was paid out of pocket by patients and their families (see section 3.1). Out-of-pocket payments include: informal payments and gratuities for staff; transport costs for accessing care; and pharmaceutical costs. Of these, by far the biggest cost is pharmaceuticals. The average cost of an outpatient medical visit for someone with no chronic diseases is: US\$ 1 for transport, US\$ 2.5 in gratuities for staff, and US\$ 14.4 on medicines; for a patient with three or more chronic conditions this jumps to: US\$ 1.3 for transport, US\$ 3.3 for gratuities, and US\$ 30.6 for medicines, per visit (Menon & Frogner, 2010). Most of the population pay out of pocket for their pharmaceuticals in both outpatient and inpatient care. The global economic crisis followed by political unrest and conflict in Ukraine have pushed up the price of pharmaceuticals and increases are happening in a chaotic and uncontrolled fashion in response to economic turmoil, while successive governments have struggled to mitigate the negative consequences of this process for the population. Out-of-pocket costs have the potential to push households into poverty and out-of-pocket spending can be catastrophic, particularly for households with members who have chronic conditions (Murphy et al., 2013b). This is likely to be exacerbated by the recent levying of VAT on pharmaceuticals, because the sick (particularly those with chronic diseases) who need these medicines are often the least able to afford such taxes (Gelders et al., 2006).

Both rich and poor alike pay for drugs and treatment out of pocket, but unquestionably it is the poorest and most vulnerable households that bear a disproportionate burden. A survey conducted in 2001 and 2010 found that in Ukraine fewer than half the respondents had sought care when they needed it in the previous four weeks and, of these, one fifth cited financial barriers as the reason why; half of them gave self-treatment as the reason, but this may also be used as a substitute for accessing the health system (Balabanova et al., 2012).

The necessity of paying out of pocket limits the affordability of care. The annual nationwide household survey conducted by the State Statistics Service found that, in 2011, 22.7% of households reported that they had to forego necessary medical care, which is considerably higher than it had been in 2010 (14.9%), and even a bit higher than in 2009 when the global financial crisis hit (20.5%). This sharp reduction in the accessibility of medical care has been attributed to increased popular expectations from the health system as the

reform programme started in 2010. In 2012, the proportion of households where at least one member had foregone treatment fell, but it was still high (16.7%). In 2013, the proportion of households where at least one member could not access necessary care, including medicines, increased once more to 21.6% and this was primarily due to the high cost of pharmaceuticals; 95.5% of respondents said that they had foregone care due to the high cost of pharmaceuticals and health services. Overall, in 8.3% of households, at least one member did not go to a polyclinic doctor when required; in 5.2% at least one member did not go to a dentist when required; 7.4% could not get a necessary diagnostic procedure; 3.9% could not access inpatient care; and 13.9% had to forego required medication. However, these averages mask significant inequalities between income groups – the poorest households were 2.3 times more likely to forego necessary medical care than those in the richest decile.

### 7.2.2 Equity in financing

One of the main challenges faced by the health system in Ukraine is the mobilization of adequate resources in such a way as to guarantee equity in access to core health services. In accordance with the current requirements, health care financing should be both vertically and horizontally equitable; overall, however, the system of health care financing in Ukraine may be considered regressive. Although the main funding source – general taxation revenues – combines revenues from direct and indirect taxes, so the financing system can be considered generally progressive (Mossialos & Dixon, 2002), the progressiveness of financing from budgetary resources is reduced by a considerable volume of activities in the informal economy, especially as wealthier citizens conceal their income from taxation. National sources estimated that the size of the informal economy increased to 39% of GDP in 2009 and these estimates appear to be comparatively conservative (OECD, 2011). In 2012, it had risen to 45% (Anon, 2013). Moreover, the allocation of resources according to the type of health service, challenges vertical equity in the system. Research conducted by the World Bank found that 70% of general government expenditure on health goes to hospitals, specialist facilities and sanatoria, although the poorest sections of the population use the services of these facilities considerably less frequently than wealthy citizens (World Bank, 2008). The reforms initiated in 2012 sought to address this imbalance, but they have now been relegated in the face of ongoing conflict and crisis, and it is not yet clear what the aims of future reforms will be.

However, direct payments for services undermine vertical equity in financing to an even greater extent than do inequitable allocation mechanisms. Although estimates of private health expenditure from different sources and using different methods vary greatly, even the most conservative suggest that they account for more than 40% of THE (see section 3.1). Overall, in the World Bank's assessment, population payments for medical services in Ukraine are more regressive than in other countries of the WHO European region and OECD countries (World Bank, 2008).

The system of budget financing in place allows for a certain amount of redistribution of financial resources. Following decentralization after independence (see section 2.4), the available approaches for interbudgetary transfers did not equalize financial provisions for health expenditure because the prime concern was historical precedent in allocations to facilities, and differences in the age and sex structures and morbidity levels of populations living in different territories were not taken into account. The difference between maximum and minimum funding levels for health from territorial budgets was 2.1 times. Budgetary reforms undertaken in 2001 changed these budgetary transfers so they were calculated according to a single norm – per capita funding corrected by coefficients for the budgets of different levels and territories. The system led to a definite reduction (of up to 1.6 times) in the inequalities between residents in different regions of Ukraine. However, the formula, which gives the requirements for disbursements and associated level of transfer equalization, not only included the age and sex structure of the population but was also burdened with multiple correcting coefficients taking into account the resources involved (Lekhan, Rudiya & Richardson, 2010). For example, a few coefficients linked financing to the characteristics and number of health personnel working in the health facility network, so the shortcomings of budgeting based on historical precedent were not overcome (World Bank, 2008). It also became a defining factor for the preservation of significant territorial inequalities in health care financing in connection with the presence of existing differences in regional resource provision. The health care reforms that began in 2010, did reduce inter-regional differences (up to 1.5 times) but regional inequalities nevertheless remained (State Statistics Service of Ukraine, 2014b).

## 7.3 User experience and equity of access to health care

### 7.3.1 User experience

Data on user experience is not routinely collected, but public satisfaction with the health system is low and the population of Ukraine is very critical of the condition of health services in their country. In a study conducted in 2010, only 17.4% of the population was satisfied with their health system and, while this represents an improvement since 2001 when just 12.2% were satisfied, it is still very low in international comparison (Footman et al., 2013). The same study also found that recent users of the health system had lower satisfaction with the health system than non-users (Footman et al., 2013). A survey of service users conducted in 2009–2010, found that 37% were dissatisfied with some aspect of their care (Luck et al., 2014). The persistence of informal payments in the system is at least in part linked to this dissatisfaction as patients seek to access more responsive care and avoid waiting times by paying out of pocket (Onoshchenko & Williams, 2013; Stepurko, 2013). It is also one of the factors influencing the low levels of trust people have in the system (Luck et al., 2014). The overall responsiveness of the health system has not been high on the reform agenda (see section 2.9). In 2011–2013, a study found that responsiveness in the Ukrainian health system was below average at 4.9 on a 10-point scale (Kryachkova, 2014). Meeting people's legitimate expectations about how they should be treated would likely help to rebuild trust in the system, but it would also be one of the most difficult reform challenges to overcome.

### 7.3.2 Equity of access to health care

Nominally, all benefits should be equitably distributed across the population. However, the inequities in financing mean that there are significant barriers to access in health care and that these barriers are greater for poorer and more vulnerable households (see section 7.2.1). In a household survey conducted in 2009–2010, only 36% of respondents felt that everyone in their town/village had access to health care (Luck et al., 2014). The diffusion of informal payments deters the poorest groups and rural populations (most of whom are low-income) from using medical services most of all. Due to their inability to pay for medical services, both urban and rural poor more often do not seek medical care, or postpone it; moreover, low-income patients are more often refused treatment because they cannot pay for services or pharmaceuticals (Lekhan, Rudiya & Richardson, 2010). Vulnerable groups include many elderly people who rely on their state pensions as their main source of income and people with low

educational attainment as they find it hard to find well-paid employment. Inequality in access to health care is also demonstrated by access for people living in regions with different levels of economic development. Research shows that in the poorer regions in western Ukraine financial access to health services is lower than in the wealthier regions in eastern and central Ukraine (Lekhan & Shishkin, 2007).

Inequalities caused by out-of-pocket payments can also have a horizontal regional character, as people with the same income level living in richer regions pay more out of pocket than those living in poorer regions. Similarly, in villages and small towns, gratuities are smaller than in big cities (see section 3.4). Horizontal equity in budgetary payments also impinges on the functioning of parallel health systems. Often, especially in emergencies, patients who use services in parallel health care facilities access services in the local statutory facilities, thereby taking a portion of the resources allocated to the financing of medical services for other patients in that territory who cannot access the parallel system (see section 3.6.1). The fragmentation of financial resources for health also exacerbates inequality. The move towards pooling resources to make more powerful pools at the regional level is being undone with a return to the extreme decentralization with divisions at the national, regional district/municipal and village levels (Cabinet of Ministers Resolution No. 333-p of 1 April 2014, *On approval of the Concept of reforming the local self-government and territorial organization of power in Ukraine*).

One of the more pressing problems for the Ministry of Health is how to reduce the scale of inequalities, particularly during an economic crisis that has led to a reduction in the amount of finances available for distribution.

## **7.4 Health outcomes, health service outcomes and quality of care**

### **7.4.1 Population health**

Data on trends in morbidity, mortality and the major risk factors in Ukraine since independence are provided in section 1.4. As detailed there, the main factors which have contributed to changes in population health are disputed, but it is probable that some of the fluctuations are the result of socioeconomic hardships, although changes in alcohol consumption patterns have underpinned them (Krasovsky, 2009; Meslé & Vallin, 2012). Against a background of high adult mortality from cardiovascular diseases and external causes, the strong

improvement in population health through the 1990s was the fall in infant mortality rates. These improvements are likely to reflect improvements in health care services in the perinatal period (Nizalova & Vyshnya, 2010; Meslé & Vallin, 2012). Other than this, it is not clear that the recent improvement in life expectancy since 2008 is the result of any specific policy intervention.

It has been argued that the Ukrainian health system is still designed for acute episodic disease management and therefore ill-equipped to deal with the noncommunicable disease burden it faces (Menon & Frogner, 2010). Despite recent improvements in life expectancy, in 2012, almost half the male deaths and one third of female deaths occurred at under 65 years of age (WHO Regional Office for Europe, 2014). This is considerably higher than premature mortality rates in countries of the EU. It was estimated that 25% of all premature deaths (at under 75 years of age) in 2004 could have been avoided with timely access to effective treatment; 17% could have been avoided with adequate prevention of major risk factors (smoking, alcohol, diet and road traffic accidents); and 80% of deaths among working age males and 30% of deaths among working age females were from illnesses that could have been treated adequately at the primary care level (Menon & Frogner, 2010).

Very low treatment compliance rates for people living with chronic conditions may also be indicative of significant weaknesses in the Ukrainian health system. A survey conducted in 2009 found that compliance with prescribed treatments for hypertension, diabetes and high cholesterol is low, with less than half of respondents saying they followed all of the doctors' directions in taking medications for managing their condition (Menon & Frogner, 2010), and a survey undertaken in 2001 and repeated in 2010 found similar results for the control of hypertension (Roberts et al., 2012b). While internal documents in the Ministry of Health from 2013 indicated that the pilot project for the partial reimbursement of pharmaceutical costs for the treatment of hypertension (see section 3.7.1) did improve adherence, wider implementation of this project is under threat due to the difficult economic situation in the country.

Cancer is not as prevalent in Ukraine as other noncommunicable diseases, which is likely to be linked to the relatively short average life expectancy (Menon & Frogner, 2010). Although there has been a cancer registry in Ukraine since 1996, its data cannot meaningfully be used as an indicator of health system performance by looking at indicators such as cancer survival rates.

Perhaps the only clear population health improvement that can be attributed to a specific policy intervention is in communicable disease control, with the number of new HIV cases falling in 2012 for the first time since 1995, as a result



of concerted efforts to implement harm reduction policies nationwide, which have included needle and syringe exchange programmes, education campaigns and methadone maintenance prescribing (UNAIDS, 2014). It is not yet clear how effectively these programmes will be able to continue in the territories no longer under the control of Kyiv, despite the relatively high burden of HIV in these territories (Holt, 2014; Owczarzak, Karelin & Phillips, 2015).

#### **7.4.2 Health service outcomes and quality of care**

Most direct indicators of health service outcomes are not available in the form of health service quality measures for Ukraine. As a process indicator, it can be said that the extremely low vaccination rates for children are indicative of extremely weak preventive care systems in Ukraine, but this weakness is less an issue of access than one of trust (Bazylevych, 2011; Luck et al., 2014). More complex outcome measures, such as patient-reported outcome measures (PROMs), are not in general use. The quality of health services is not regulated by a specific piece of legislation in Ukraine. From the late 1990s, the standardization of health care has developed rapidly. Thousands of clinical protocols have been developed for different medical specialties. However, the level of the standards has remained low and, although their implementation should be checked regularly in accordance with an agreed quality control system, in reality the checks carried out are fairly formal; more in-depth assessments happen usually in connection with a patient complaint about the quality of care, or a court case or other conflict situation. Health personnel lack adequate motivation to improve the quality of their work and, in the case of adopting clinical standards, this is most often linked to the low remuneration of staff. As part of the reform programme begun in 2010, only in pilot regions do health workers in primary care receive salaries linked to the intensity and quality of their work (see section 3.7.2).

An evaluation of the quality of care for selected noncommunicable diseases (chronic obstructive pulmonary disease (COPD) and chronic heart failure) in Ukraine, using a previously validated method, was conducted in 2009–2010 (Peabody et al., 2014). Overall, the scores for quality of care were low, averaging 47.4%, which was below the 50–60% range typically observed in other countries. Physicians performed best in taking a history and diagnosing the condition, but scored lowest in prescribing the standard effective treatment. This study found that there were no significant differences in quality of care between urban and rural facilities, or between the care provided in polyclinics or hospitals, but there was considerable regional variation (42–51%), with care in Crimea scoring lowest (Luck et al., 2014; Peabody et al., 2014). Indeed, the research indicated that

recent continuing medical education was the key factor impacting the quality of care provided by physicians. This is important because higher quality care can help mitigate some of the more intransigent socioeconomic determinants of health (Peabody et al., 2014). An evaluation of the Mother and Infant Health Programme similarly found that significant improvements in infant mortality rates were achieved through training health personnel and thereby changing attitudes and practices (Nizalova & Vyshnya, 2010). Nevertheless, there is a considerable gap between quality of care as it is measured and the quality of care as it is perceived by patients and the general population. Multiple coordinated surveys with households, physicians and service users conducted as part of the wider study found that 86% of households had only some or no trust in the medical profession in Ukraine (Luck et al., 2014).

Patient safety indicators such as those used for international comparisons elsewhere in Europe are not routinely collected. As such, it is not possible to assess the impact of reforms on the prevention of health care-related harm.

### **7.4.3 Equity of outcomes**

Studies and data on health service outcomes in Ukraine cannot yet be meaningfully broken down by socioeconomic group, gender or geographical region.

## **7.5 Health system efficiency**

### **7.5.1 Allocative efficiency**

Under the Soviet Semashko system, resource allocation was conducted according to the number of beds and staff in health care facilities and not on population health care needs. The volume and quality of work conducted were not factors. This approach created inappropriate incentives for extensive development and the preservation of excessive and inefficient infrastructure, resulting in unjustified growth in outpatient appointments, unnecessary hospitalizations, longer hospital stays, and so on. The biggest health care facilities were also concentrated in the cities, towards which most health care resources were directed. Overall, this Soviet approach to allocating resources to health care facilities based on their size has been preserved in Ukraine despite recent reform efforts in four pilot regions.

Formally, budgets at the health facility level are based on Ministry of Health norms, which define the staffing levels and other essential resources (such as the number of doctors) arising from the number of beds and visits to health care facilities and not from the demand for medical services. The imperative nature of these normative acts (if they are not fulfilled, there may be harsh sanctions) has been a contributory factor to the inflexibility of resource allocation in health care, leading to high routine expenditure (particularly wages, utility bills and the like) and limiting investments to improve the quality and efficiency of services for patients. Exacerbating this problem is the legislation, which prohibits the closure of health care facilities and the difficulties local authorities encounter when trying to reduce staff numbers.

At the same time, under the pressure of economic crises in Ukraine, there have been a number of specific structural changes in the health system. The acute shortage of state funding for health care became the main reason for changes in the most expensive sector – inpatient care. New norms for the maximum number of beds and staff per capita have been introduced and reduced, but they have provoked strong resistance from both the health care leadership and the many medical personnel at the local level. For the former it would mean a cut in funding and for the latter they could lose their jobs. Cutting the number of beds was achieved mainly by cutting hospital capacity (see section 5.1). As a result, the main saving from reducing bed numbers through the 1990s was insignificant in the face of dominant expenditure structures financing care irrespective of the volume of services provided. More radical ways of reducing the number of hospital beds by closing facilities generally only affected the smallest rural hospitals, which, as a rule, were turned into outpatient clinics. In a number of cases, the closure of these facilities was dictated not so much by expediency as by the limited resistance to their closure. Besides economic factors, the reduction in the size of the population served was also influential for reducing the number of hospital beds.

A reasonably high level of utilization against the background of poor access to inpatient care, which is extremely expensive for a significant proportion of the population, is strong evidence of the inefficiency of financing inpatient care by the number of bed-days. This pushes hospitals to keep beds open and fill them with patients, irrespective of whether they really need inpatient treatment. As a result, the dominance of funding for inpatient care in THE has been preserved, and spending on outpatient and particularly primary care remains far too low. This was the spur for reforms in pilot regions, which sought to reorient the system towards primary care, but the ongoing political crisis has prevented the scale-up of these pilots to the rest of the country.

The reduction of bed numbers pushed the task of raising the efficiency of resource utilization into second place. In trying to preserve their bed capacity and to receive additional informal funds from the population, hospitals increase the volume of services, weakening the call for hospitalization to be necessary on medical grounds. The expansion of day and home care from polyclinics has not yet been accepted as a substitute for inpatient care. Unnecessary hospitalizations account for a third of all hospitalized patients (Lekhan, Rudyi & Richardson, 2010). It was found that nearly 13% of patients were receiving specialist outpatient care and 20% were receiving treatment using technologies which did not require hospitalization. The average cost of medical services for one patient based on total expenditure (not only those that are really covered by the budget) in an outpatient setting would be approximately four times lower, and for day cases two times lower, than the cost of inpatient treatment (Lekhan, Rudyi & Richardson, 2010). Human resources policies to change the skill mix and make greater use of nurses have not yet been explored at the policy level.

In addition, human resources are extremely unevenly distributed. The biggest staff shortages are in rural areas and in primary care. Measures taken by the Ministry of Health in the form of sending new graduates to work in underserved areas and specialties, and the introduction of some benefits for health workers working in rural areas have not brought the desired results (see section 5.3). Overall, as government funds are allocated according to inputs (linked mainly to beds and bed-days) with line-item budgeting for health care facilities and seniority-based salaries for doctors and nurses, according to national staffing norms, there is little incentive to make the system more efficient. Thus, the majority of public resources are still directed towards maintaining the existing infrastructure, despite recent reform efforts in four pilot regions. Real rationalization of the system will require strong political will as well as constitutional change so that the existing network of providers can be reduced. This is in addition to the universal resistance from local populations to the closure or downgrading of their local health care facilities, an issue which is particularly acute in Ukraine where problems with the basic infrastructure, such as roads, hamper access to other facilities.

### **7.5.2 Technical efficiency**

Assessing the economic efficiency of the health system is not feasible, as this kind of research has not been conducted in Ukraine. Cost-effectiveness guidelines are not yet a feature of the system. Policy development around generic prescribing has also been limited, despite the significant cost of pharmaceuticals in Ukraine. Barriers to rational prescribing include the lack

of incentives for doctors to prescribe generics and pharmacists to dispense them but also the widespread lack of trust in the efficacy of unbranded medicines (Richardson, Sautenkova & Bolokhovets, 2014).

## 7.6 Transparency and accountability

Public participation in the development of health policy and programmes, or in setting the broader health agenda, are in their nascent stages in Ukraine. Although there are a number of legal provisions for public participation in the health sector and various patient groups, they have not yet played an active role in influencing decisions. Most influential has been the less formal protest channels used by social groups to challenge the most recent health reform programme, which began in 2010 (see section 2.9). Nevertheless, priorities are still formally set centrally by the Ministry of Health, although the direction more recently has been heavily influenced by international agencies involved in managing the economic crisis.

The fragmentation of the system along with the general lack of transparency makes it hard to see who would be responsible for health system monitoring and ensuring accountability – neither of which have been the focus of reform efforts to date. However, the current level of informality in the system would undoubtedly act as a barrier to effective monitoring, and tackling this in order to bring greater transparency to the system will prove a great challenge given that the health system is an embedded part of the Ukrainian economy, much of which is resolutely in the shadows (Bazylevych, 2009; Onoshchenko & Williams, 2013; Stepurko, 2013). A heavy reliance on informal practices within the Ukrainian health system is testament to the failure of formal institutions to satisfy the needs of most participants in the system (Bazylevych, 2011).