



# UKRAINE HEALTH SYSTEM ASSESSMENT 2011

August 2011

This publication was produced for review by the United States Agency for International Development. It was prepared by Lisa Tarantino, Slavea Chankova, Josh Rosenfeld, and Subrata Routh (Abt Associates Inc.), and Elizabeth Preble for the Health Systems 20/20 Project.

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## **DISCLAIMER**

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# ABSTRACT

In response to a request from the United States Agency for International Development (USAID)/Ukraine Mission, the USAID-funded Health Systems 20/20 Project conducted this assessment in order to identify strengths and weaknesses in the Ukraine health system, focusing on HIV/AIDS, tuberculosis (TB), and family planning; develop recommendations to inform USAID/Ukraine's health programming; and review the Government of Ukraine's (GOU's) draft health reform plan.

The Health System Assessment was conducted from January to April 2011. The assessment evaluated key health system functions organized around the six technical building blocks developed by the World Health Organization: governance; health financing; service delivery; human resources; medical product management; and health information systems. The assessment team analyzed the cross-cutting issues that appeared to impact the system most extensively. The team identified a number of strengths and opportunities in the health system in Ukraine as well as four cross-cutting constraints that captured the majority of the key weaknesses across the health system components. The assessment's recommendations address the four cross-cutting constraints and highlight opportunities that the GOU, USAID, donor agencies, and other key stakeholders may choose to pursue to strengthen the health system in order to improve the health of all Ukrainians.

While the process of decentralization has led to some changes in the financing system, the core of the Ukrainian system remains unreformed since independence from the Soviet Union. Ukraine's health system currently faces significant challenges, including increases in non-communicable and infectious diseases, particularly HIV/AIDS and TB, as well as a decline in life expectancy. Poor health status is coupled with a difficult economic environment, a result of the recent global economic downturn.

The GOU has embarked on an ambitious health reform plan, articulated in the President of Ukraine's Economic Reform Plan (2010) and a number of draft and recently enacted laws. The GOU's plan addresses key issues faced by the health system and is based on international best practices. As implementation is now upon the reformers, the GOU is carefully considering the order and methods of enacting the reforms as well as lessons from other countries in the region.



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# ACRONYMS

<b>ART</b>	Antiretroviral Therapy
<b>ARV</b>	Antiretroviral
<b>CDC</b>	Centers for Disease Control
<b>CEE/CIS</b>	Central and Eastern Europe/the Commonwealth of Independent States
<b>CIS</b>	Commonwealth of Independent States
<b>CMS</b>	Center for Medical Statistics
<b>CYP</b>	Couple Years of Protection
<b>DALY</b>	Disease Adjusted Life Years
<b>DHS</b>	Demographic and Health Survey
<b>DOTS</b>	Directly Observed Treatment Short Course
<b>E&amp;E</b>	Europe and Eurasia
<b>ECA</b>	Eastern Europe and Central Asia Region
<b>EU</b>	European Union
<b>FP</b>	Family Planning
<b>GBP</b>	Guaranteed Benefit Package
<b>GDP</b>	Gross Domestic Product
<b>GOU</b>	Government of Ukraine
<b>GTZ</b>	<i>Gesellschaft für Technische Zusammenarbeit</i>
<b>HFA-DB</b>	Health for All Database
<b>HIS</b>	Health Information Systems
<b>HMIS</b>	Health Management Information Systems
<b>HRH</b>	Human Resources for Health
<b>HSA</b>	Health System Assessment
<b>ICT</b>	Information and Communications Technology
<b>IDU</b>	Injecting Drug Use
<b>IMF</b>	International Monetary Fund
<b>IUD</b>	Intrauterine Device
<b>IT</b>	Information Technology
<b>JSI</b>	John Snow, Inc.
<b>M&amp;E</b>	Monitoring and Evaluation
<b>MARP</b>	Most At-Risk Population
<b>MCH</b>	Maternal and Child Health
<b>MDR</b>	Multi-Drug Resistant
<b>MOF</b>	Ministry of Finance
<b>MOH</b>	Ministry of Health
<b>NCD</b>	Non-Communicable Disease
<b>NGO</b>	Nongovernmental Organization
<b>NHA</b>	National Health Accounts
<b>OB/GYN</b>	Obstetrics and Gynecology

<b>OC</b>	Oral Contraceptive
<b>OECD</b>	Organization for Economic Cooperation and Development
<b>PEPFAR</b>	President's Emergency Plan for AIDS Relief
<b>PHC</b>	Primary Health Care
<b>PMTCT</b>	Prevention of Mother-to-Child Transmission
<b>PSM</b>	Procurement and Supply Management
<b>RH</b>	Reproductive Health
<b>SES</b>	Sanitary-Epidemiological Services
<b>SF</b>	Sickness Funds
<b>SSC</b>	State Statistical Committee
<b>STI</b>	Sexually Transmitted Infection
<b>SWOT</b>	Strengths, Weaknesses, Opportunities, and Threats
<b>TB</b>	Tuberculosis
<b>THE</b>	Total Health Expenditure
<b>UISR</b>	Ukrainian Institute for Strategic Research
<b>UN</b>	United Nations
<b>UNAIDS</b>	Joint United Nations Programme on HIV and AIDS
<b>UNDP</b>	United Nations Development Program
<b>UNFPA</b>	United Nations Population Fund
<b>UNGASS</b>	UN General Assembly Special Session
<b>UNICEF</b>	United Nations Children's Fund
<b>US</b>	United States
<b>USAID</b>	United States Agency for International Development
<b>USG</b>	United States Government
<b>VHI</b>	Voluntary Health Insurance
<b>WDI</b>	World Development Indicators
<b>WHO</b>	World Health Organization
<b>XDR</b>	Extensively Drug Resistant

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# EXECUTIVE SUMMARY

In response to a request from the United States Agency for International Development (USAID)/Ukraine, the USAID-funded Health Systems 20/20 Project conducted a Health Systems Assessment (HSA) in order to: 1) identify strengths and weaknesses in the Ukraine health system, focusing on HIV/AIDS, tuberculosis (TB), and family planning; 2) develop recommendations to inform USAID/Ukraine's health programming; and 3) review the Government of Ukraine's (GOU) draft health reform plan.

The HSA was conducted from January to April 2011. It evaluated key health system functions organized around the six technical building blocks developed by the World Health Organization: governance; health financing; service delivery; human resources; medical products; and health information systems (HIS). The team identified a number of strengths and opportunities in the health system in Ukraine as well as four cross-cutting constraints that captured the majority of the key weaknesses across the health system components. Assessment recommendations were tailored to address the four cross-cutting constraints and to highlight opportunities that the GOU, USAID, overseas development and donor agencies, and other key stakeholders may choose to pursue to strengthen the health system in order to improve the health of all Ukrainians.

## KEY FINDINGS BY HEALTH SYSTEM BUILDING BLOCK

### Governance and leadership

The GOU is embarking on the most ambitious health reform agenda since independence. In doing so, it can build on a number of strengths in the system. Solid reform strategies and plans have been developed. Key stakeholders and technical specialists are active participants in policy formulation and civil society performs a healthy watchdog function, particularly around HIV/AIDS issues. At the same time, the GOU faces a number of challenges to reform including capacity and resource constraints, political opposition, and the enormity of the task of comprehensive health care reform. Fragmented roles and relationships in the health sector undermine the ability of the Ministry of Health (MOH) to lead and guide the reform process. Health facilities have limited managerial autonomy, which inhibits their ability to organize themselves more efficiently or to be more responsive to the population's health needs.

### Health financing

There is overcapacity in Ukraine's health system, particularly reflected in the excess infrastructure and human resources concentrated at secondary and tertiary levels. This overcapacity combined with the goal of providing health care to all challenges the government financially. Government spending on health care is low overall, as is the share of resources dedicated to primary health care (PHC) services. Out-of-pocket payments are high. Health financing systems continue to be based on inputs (e.g., the number of beds) and historical budgets rather than health service needs. Government funding for and spending on HIV/AIDS and TB are not separately tracked, making funding management and decision-making challenging. While HIV/AIDS and TB services benefit from donor support, government funding is uneven, with limited government investment in prevention of these growing public health threats.

## **Service delivery**

Ukraine has significantly improved the delivery of maternal and child health care and family planning/reproductive health services and increased the availability and mix of contraceptives. Protocols for HIV/AIDS diagnosis and treatment follow international, evidence-based standards, and the program of prevention of mother-to-child transmission has shown significant results. Further, the Global Fund to Fight AIDS, Tuberculosis, and Malaria (“the Global Fund”) and USAID programming has led to increased availability of HIV prevention, outreach, and treatment services. Ukraine has allocated significant funds to fight TB and first-line drugs are generally available. Despite this progress, significant challenges remain to improve delivery of services. PHC remains weak and is often bypassed, resulting in inappropriate and costly self-referral and overreliance on inpatient care. Many services, including HIV and TB services, are not well integrated into the general health delivery system and continue to be provided vertically. Evidence-based medicine is not consistently followed and facility-based quality improvement initiatives have not been institutionalized widely. The system also does not invest sufficiently in prevention and public health services to minimize unhealthy behaviors that lead to increases in both non-communicable and infectious diseases.

## **Human resources**

Ukraine has an adequate overall number of health care workers; however, the types and geographic location are not ideal to meet the country’s needs and the workforce is aging. There is a critical shortage of family doctors (about a third of estimated needs according to the MOH) as well as a shortage of adequately trained health care managers. Educational institutions have the capacity to produce a sufficient number of graduates to maintain the health workforce, but large percentages of new graduates choose to work outside the state health care system in response to low wages, low status of the medical profession, and poor working conditions in health facilities. In addition, the personnel remuneration system does not provide incentives for health workers to improve the quality, efficiency, or quantity of their work. Despite attention to human resource issues at high levels of the government and adequate in-country capacity for analysis and research on human resources issues, there is no strategic national plan for human resource development in the health sector.

## **Management of pharmaceuticals and medical supplies**

Access to health commodities has improved due to the expansion of private sector pharmacies. Most Ukrainians pay for their drugs and medical supplies out of pocket. ART provision has increased to 48 percent of people living with HIV/AIDS, with the GOU providing substantial support, and gaining assistance from the Global Fund. New e-TB manager systems are expected to improve the TB drug supply chain and to increase treatment adherence. Contraceptive availability has increased, especially due to USAID efforts in selected oblasts and free distribution to low-income family planning users and other categories of population identified by the State Program “Reproductive Health of the Nation up to 2015.” In addition, the process of monitoring, evaluating, and improving the safety of medicines has improved in recent years. Despite this progress, forecasting, quantification, and supply chain data management systems are limited, leading to occasional stock-outs of key drugs (especially antiretrovirals), and there are no such systems for contraceptive commodities. Centralized procurement processes often result in provision of drugs that do not meet local needs and may not reduce prices relative to international prices as intended.

## **Health Information System**

The key components of the HIS are institutionalized, including a routine HIS managed by the MOH, an epidemiological surveillance system, and a vital statistics system. There is an established culture of regular data collection and reporting through the routine HIS of the MOH. However, notable data quality issues exist for some types of indicators, resulting primarily from disincentives for accurate reporting and data quality assurance, and – perhaps to a lesser extent – from insufficient skills for



completing and compiling some types of data records. Availability of easily accessible data on key health indicators to the public is limited. While there are abundant data flowing through the routine HIS and strong in-country capacity for data analysis, there is inadequate use of data for evidence-based strategic planning at national level. The shortage of HIS resources, particularly for technology upgrades and related training, and insufficient capacity of managers at all levels in use of data for effective health care management are notable constraints.

## CROSS-CUTTING FINDINGS

Across the health system building blocks, the HSA found that the Ukrainian health system would benefit from significant strengthening in order to respond to poor and stagnating health indicators relative to the country's income level. The extensive post-Soviet service delivery structure is no longer affordable, particularly in light of the global economic downturn, and requires both downsizing and modernization. Strengths and opportunities within the health system identified by the assessment team include: high-level government support for comprehensive health system reform, existence of a solid health reform strategy and plan that includes interventions designed to address key health system gaps, and an ambitious but achievable implementation schedule starting in three pilot oblasts and one pilot municipality followed by nationwide scale-up. The GOU's near-term emphasis on optimizing the hospital network and further strengthening PHC, restructuring health financing and introducing new provider payment systems, and improving quality of care are in line with health reform models and best practices that have been pursued successfully in other post-Soviet countries.

At the same time, the assessment team identified four cross-cutting constraints across the health system components:

1. Overall leadership and governance of the health system requires strengthening;
2. The structure of service delivery, including human resources, does not match the health needs of the population;
3. Health financing systems and budgeting norms adversely impact most aspects of the health system; and
4. While quality of care is improving in some priority areas, overall the content and nature of clinical practice in Ukraine requires further standardization and modernization.

## RECOMMENDATIONS

### ***1. Strengthen political leadership and governance as key ingredients to system strengthening***

Significant health reform has not occurred in Ukraine to date due to a lack of political will and insufficient leadership, despite the enactment of a number of health reform policies and legislation. Currently, political will for health reform seems to exist at the highest levels of the GOU. Investment in strengthening the leadership and management capacity of the MOH and other health sector actors is warranted. A first step might be to clearly define a new policy and stewardship role for the MOH and build capacity in agreed-upon functions. More broadly, institutional roles and relationships should be defined as part of health reform implementation, not only for the MOH, but also for oblast and rayon health departments, local government administrations, health facilities, quality of care committees/commissions, and organizations that can self-govern the medical profession over time (e.g., chambers and professional medical associations).

Working groups under the MOH that have been formed to address specific diseases, such as HIV/AIDS and TB policy reform, can serve as a model for broader, multi-sectoral, "Health Reform Teams" at the national, oblast, and rayon level to guide the reform implementation process. These groups could even include or liaise with representatives from provider groups, nongovernmental organizations, and patient

groups that could hold the government accountable for effective and timely implementation. The GOU should take care to communicate reform strategies and plans and actively solicit input and feedback from the public, including through provider suggestion/complaint systems, national hotlines, public hearings, and/or community roundtables.

The government may also consider building a monitoring and evaluation framework and agreeing on indicators to measure health reform. This would include clarifying responsibility for collection and analysis of data against indicators in pilot sites, and feeding analysis back to health reform teams to refine pilot implementation strategies and inform broader oblast- and national-level implementation.

## **2. Reorient health care system from inpatient / specialist model to a PHC-focused model**

Training of family doctors and investment in PHC facilities are essential yet resource-intensive aspects of reorienting the health care system. A strategy for training family doctors and retraining internists and pediatricians to serve as family doctors providing care to mixed populations should be a cornerstone of an integrated human resources for health strategy. Appropriate HIV, TB, and family planning/reproductive health services should be integrated into the PHC package of services and assigned to family doctors, with training on these topics institutionalized in undergraduate medical school curricula and in-service training.

As indicated in the GOU's health reform plans, the health care network requires optimization to reduce excess inpatient and specialty capacity and to increase investments in PHC, public health, and disease prevention. In the long-term, this strategy will reduce health care costs and increase access to services for all.

Top-down hospital rationalization or optimization plans have had mixed results in post-Soviet countries. While central government-led rationalization proved effective in Estonia, in Kyrgyzstan increased facility management autonomy paired with new output-based provider payment systems created an environment conducive to downsizing led by oblast governments. Strategies to increase energy efficiency and decrease utility costs have proven to be an effective entry point for reducing overall hospital costs and excessive infrastructure; however, it is important to retain savings gained from increased efficiencies so incentives remain in place for further efficiency gains.

## **3. Reform health financing as an essential step to system strengthening**

Donors should continue and increase funding for HIV/TB prevention and treatment, and the GOU should take advantage of the opportunities external funding for these diseases provides to focus on strengthening the greater health system. USAID-funded contraception donations continue to be needed.

While the health sector in Ukraine would benefit from additional government financing, significant improvements in delivery of health services are also possible from more efficient use of existing resources. Pooling the currently fragmented health sector resources and transitioning to population/service-based health financing and provider payment systems would increase efficiency and could lead to quality improvements. Based on experience in other countries in the region, the assessment team recommends that Ukraine move toward implementing:

- A per capita payment system for PHC;
- A case-based payment system for secondary and tertiary care; and
- A global budget payment system for special programs such as HIV and TB.

The status of health facilities should be simultaneously changed to increase their freedom to manage their own budgets, respond to local service needs, and develop contractual relationships with health personnel that encourage increased performance and quality.

The environment for voluntary health insurance and “Sickness Funds” should be supported so that these existing (but negligible) prepayment schemes can be taken to scale. Expansion of these schemes may help lay the groundwork for the introduction of a national health insurance system that would improve risk pooling and reduce the risk of catastrophic health expenses.

#### **4. Implement strategies to improve quality of care**

While quality of care cannot be sustainably improved without the above cross-cutting issues being addressed, those steps will not be sufficient to ensure improvements in quality. In addition to addressing issues of governance, health delivery structure, and health financing, concentrated attention should be paid to the methods of adopting evidence-based practices, improving provider skills and competencies, and introducing quality assurance, improvement, and control mechanisms. A process for the development, approval, and implementation of evidence-based clinical guidelines for priority health conditions should be developed (such as those developed with USAID support for OB/GYN services.) Professional medical associations should be encouraged to take a lead role in this process. Facilities should be trained in quality improvement methodologies and supported to introduce these processes to implement new or revised guidelines and measure performance against key indicators. Finally, government purchasing of health care services through new provider payment mechanisms should be accompanied by a routine sample of clinical audits to ensure the quality of care being provided meets standards that may be articulated in contracts between purchaser and provider.



# I. BACKGROUND

Ukraine's health system faces significant challenges, including increases in non-communicable and infectious diseases, particularly HIV/AIDS and tuberculosis (TB), as well as a decline in life expectancy. Poor health status is coupled with a difficult economic environment, a result of the recent global economic downturn. In reaction to these challenges, the Ukrainian government is initiating health reforms that aim to improve health service delivery, health staffing, and health financing.

The recommendations offered by this assessment highlight opportunities, projects, and personnel that USAID/Ukraine, the Ukrainian Ministry of Health (MOH), donor agencies, and Ukrainian and international nongovernment organizations (NGOs) can invest in and support in order to improve the health of all Ukrainians.

In response to the USAID/Ukraine Mission's request, the Health Systems 20/20 Project focused this HSA on the following objectives:

- Identify strengths and weaknesses in the health system, focusing on HIV/AIDS, TB, and family planning;
- Develop recommendations to help inform USAID/Ukraine's health programming regarding the health sector building blocks for HIV/AIDS, TB, family planning, and maternal and child health (MCH); and
- Review the Government of Ukraine's (GOU's) draft health reform plan.



## 2. COUNTRY OVERVIEW

### 2.1 GENERAL

With an area of 603,700 km<sup>2</sup>, Ukraine is the second largest country in Europe. The country is divided politically into 24 oblasts (regions) and the cities of Kiev and Sevastopol. Oblasts are divided into 490 rayons (districts), with cities and towns, both urban and rural, providing local governance.

Administrators in the oblasts and rayons are appointed by the President. Additionally, the Republic of Crimea is an autonomous region, with its own constitution and ability to appoint an executive, and oblast and rayon administrators.

The majority of the population is Ukrainian (above 77 percent), with a significant number of Russians living in eastern Ukraine and the Crimea. Other minority groups in Ukraine include Belarusians, Bulgarians, Hungarians, Moldovans, Poles, Romanians, and Crimean Tatars (CIA, 2011).

FIGURE 2.1. MAP OF UKRAINE



Source: CIA World Fact Book, 2011.

#### 2.1.1 THE HEALTH SYSTEM OF UKRAINE

After the fall of the Soviet Union in 1991, most former republics began a process of health care system reform. Ukraine also has embarked on a number of attempts at reform, yet, the health sector by and large retains the structure of the Semashko (Soviet) Model. The Semashko Model was a state-funded health system based on general taxation with state-owned delivery systems. There was no separation between the purchaser and provider of care, all facilities were owned and managed by the state, and all health care workers were government employees (Borowitz, et al., 1999.) Special health services such as TB treatment and MCH services were delivered through separate, vertical systems.

One of the strengths of Ukraine's health system is MCH service delivery. Maternal mortality rates and the percentage of infants with low birth weight compare favorably with other countries in the region (UNICEF, 2009). See Table 2.1 for this comparison and other data on Ukraine. Still, the system currently faces significant challenges including an increasing burden of chronic diseases such as heart diseases and diabetes. Chronic diseases are a major contributor to the high level of mortality in working age males caused, in large part, by unhealthy behaviors such as lack of exercise, alcohol abuse, and smoking.

Ukraine has the highest HIV/AIDS prevalence rate in Europe and one of the highest TB rates in the region. Co-infection rates are climbing as is the prevalence of multi-drug resistant TB (MDR-TB). The GOU is challenged to respond to the needs of these diseases and provide adequate prevention and supportive services in a sustainable manner.

**TABLE 2.1. SELECTED INDICATORS FOR UKRAINE AND CORRESPONDING CIS AND EU AVERAGES**

Selected Indicators	Ukraine	CIS Average	EU Average	Source of Data
Total population	45,992,000	-	-	UN-2008
Population growth (annual %)	-0.54%	0.49%	0.42%	WDI-2008, Eurostat-2010
Urban population (% of total population)	68%	53%	71%	WDI-2008, Eurostat-2010
GDP per capita (constant 2000 US\$)	\$987	\$1453	\$19,069	WDI-2009
GDP growth (annual %)	-15%	-1%	-4%	WDI-2009
Life expectancy at birth	68	69	78	WDI-2008
Maternal mortality ratio (per 100,000 births)	16	82	6	HFA-DB-2011, WDI-2005
Under-5 mortality rate	16	23	N/A	UNICEF 2009
Prevalence of HIV total (% of population aged 15-49)	1.33%	0.4%	0.29%	Ukrainian AIDS Centre/MOH, 2009; UNAIDS-2007 and 2010
TB prevalence, all forms (per 100,000)	76	105	11.7	WHO-2007 and 2008
TB treatment success rate (% of registered cases)	59.02%	70.1%	N/A	WDI-2008

Note: CIS=Commonwealth of Independent States, EU=European Union, UN=United Nations, WDI=World Development Indicators (World Bank), GDP=gross domestic product, HFA-DB= European Health for All database UNAIDS=Joint UN Program on HIV/AIDS, WHO=World Health Organization

## 2.1.2 SUMMARY OF RECENT POLITICAL AND ECONOMIC HISTORY IN UKRAINE

Following the dissolution of the Soviet Union and throughout the 1990s, the country experienced difficulties with its transition to a market-based economy, which led to significant social instability and reduced incomes and living standards for most of the population. The need for health care increased considerably even as the standard of living decreased (Menon et al., 2009) and health care costs increased (Lekhan, Rudyi, and Nolte, 2004).

In 2005, the “Orange Revolution,” brought significant political change to Ukraine, and new political parties and political leaders to power. However, energy disputes with Russia and disillusionment from perceived inability of the government to shepherd in meaningful reform led to the election of Ukraine’s current President Viktor Yanukovich. Yanukovich’s administration has declared economic and government reform to be priorities.

The economy stabilized in the late 1990s, and from 2001 to 2008, Ukraine recorded the strongest economic growth of any European country, with an average annual GDP growth rate of 7.5 percent (World Bank (a) 2010). In 2010 Ukraine’s GDP grew by 4.9 percent in quarter 1 and 6 percent in quarter 2 (World Bank (b), 2010). This can be attributed to recent economic reforms, an infusion of US\$15 billion from an International Monetary Fund (IMF) loan, and renewed world demand for Ukrainian steel. Ukraine has developed short- and medium-term economic priorities to stimulate growth. These priorities include reducing inefficiencies in transfers and subsidies, removing redundancies



in permits, taxation, and financial regulation, encouraging deregulation, improving bankruptcy protection, and ensuring merit-based advancement and recruitment in the public sector.

The World Bank's "Doing Business Report," which measures the conduciveness of a country's regulatory environment for starting and operating a business, ranks Ukraine 145th out of 183 countries globally, and 24th out of 25 countries in the World Bank's Eastern Europe and Central Asia (ECA)<sup>1</sup> region. Table 2.2 lists selected business indicators and Ukraine's rank.

**TABLE 2.2. UKRAINE'S "DOING BUSINESS" RANKINGS**

"Doing Business" Indicator	Ukraine's Global Rank in June 2010 (of 183)	Ukraine's ECA Rank in June 2010 (of 25)
Paying Taxes	181	24
Registering Property	164	25
Trading Across Borders	139	18
Starting a Business	118	22
Protecting Investors	109	20
Getting Credit	32	8

Source: World Bank and International Finance Corporation, 2010.

Key barriers to private sector development in Ukraine include:

- **Relative political instability:** Regime changes have led to numerous changes to financial and tax regulations.
- **Taxes:** More than half of firms in Ukraine find tax rates a major constraint. Tax code changes adopted in early 2011 in effect favor larger businesses over small.
- **Informal payments:** A recent survey reports that 31 percent of firms were required to pay an informal payment to public officials to ensure that their business ventures can go forward (World Bank (b), 2009).

## 2.2 DEMOGRAPHIC TRENDS

Between 1991 and 2008, Ukraine's population decreased dramatically by over 6 million people, or 11.5 percent of the country's population at independence. Although 20 percent of the population decrease is related to emigration, the decrease is also directly linked with a decreasing fertility rate, and a negative natural growth rate. Ukraine's fertility rate of 1.39 is one of the lowest in the world. In 2007, there were 10.2 births per 1,000, and 16.2 deaths per 1,000 (Menon et al., 2009).

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<sup>1</sup> The World Bank ECA region includes Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kosovo, Kyrgyz Republic, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tajikistan, Turkey, Ukraine, Uzbekistan.

## 2.3 HEALTH STATUS OF THE POPULATION

### 2.3.1 MORBIDITY

The percentage of infants with low birth weight and percentage of children under five suffering from underweight are low, and compare favorably with other countries of Central and Eastern Europe and the Commonwealth of Independent States (CEE/CIS)<sup>2</sup> (UNICEF 2009).

In terms of adult health, however, Ukraine faces an increasing burden of chronic diseases. While this is not uncommon, the very early onset of these diseases is dramatic compared with Europe. Non-communicable and chronic diseases are a major contributor to the high level of mortality in working age males, and are caused, in large part, by unhealthy risk behaviors such as obesity, hypertension, alcohol abuse, and smoking. These lifestyle behaviors are theoretically both modifiable and preventable, but the following factors contribute to the magnitude of the problem in Ukraine (Menon et al., 2009).

- Low awareness of one's own health status
- Insufficient diagnosis of hypertension and obesity
- Health professionals' not advising smokers to quit
- Low compliance with prescribed treatment

In Ukraine, over 25 percent of the adult population (18–65 years of age) has a chronic disease or condition, and 7 percent has three or more such conditions (Menon and Frogner, 2010). Chronic and non-communicable diseases are found across the country and are estimated to account for about 70 percent of the disability in Ukraine of the 20 million disability-adjusted life-years (DALYs) in 2004 (Menon and Frogner, 2010). See Table 2.3 for the top causes of death and DALYS in Ukraine.

**TABLE 2.3. TOP 12 CAUSES OF DEATH AND DALYS IN UKRAINE**

Top 12 Causes of Death (%) 2008		Top 12 Causes of DALYs (%) 2005	
Ischemic heart disease	44.9	Ischemic heart disease	15.2
Cerebrovascular disease (stroke)	14.0	Cerebrovascular disease (stroke)	5.4
HIV/AIDS	3.2	Other unintentional injuries	1.8
Cirrhosis of the liver	3.1	Unipolar depressive disorders	4.1
Other unintentional injuries	2.3	HIV/AIDS	3.8
Trachea, bronchus, lung cancers	1.9	Poisonings	2.9
Colon and rectum cancer	1.8	Alcohol use disorders	3.3
COPD	1.7	Cirrhosis of the liver	3.3
Tuberculosis	1.6	Congenital anomalies	2.8
Poisonings	1.5	Road traffic accidents	2.7
Stomach cancer	1.4	Nutritional deficiencies	2.5
Road traffic accidents	1.3	Tuberculosis	2.4

WHO Global Burden of Disease Surveillance (<http://apps.who.int/ghodata/>)

### Maternal and child health

Infant mortality and child mortality rates dropped from 1990 to 2008, from 18 and 21 to 14 and 16, respectively, and compare favorably with other countries of the CEE/CIS region.

<sup>2</sup> The UNICEF region of CEE/CIS includes Albania, Armenia Azerbaijan, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Georgia, Kazakhstan, Kosovo, Kyrgyzstan, Macedonia, Moldova, Montenegro, Romania, Russia, Serbia, Tajikistan, Turkey, Turkmenistan, Ukraine, Uzbekistan.

Ukraine’s maternal mortality rate in 2008 was 15.47 maternal deaths/100,000 live births, down from 2005 levels. This ratio compares favorably with the Russian Federation (23.79) and the Republic of Moldova (43.57), but was higher than that reported for Belarus (2.78), Poland (4.58), and the EU (6.4) (WHO Regional Office for Europe (a), 2011).

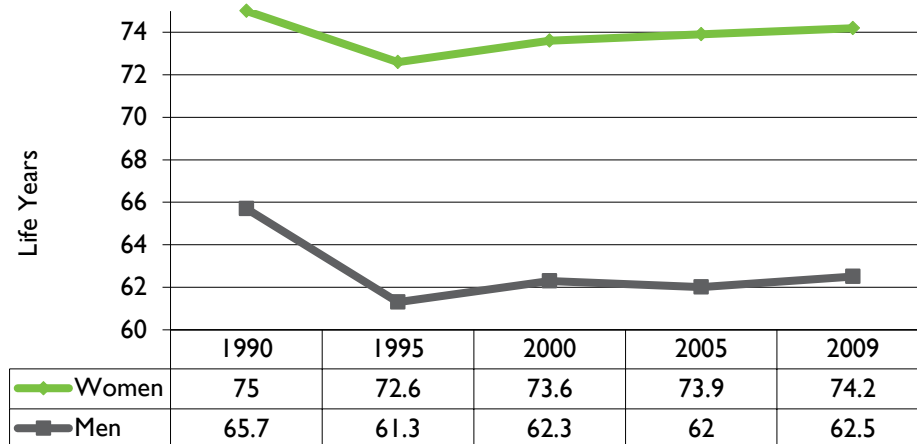
An alarming trend in Ukraine over the past three years has been declining rates of vaccination among children in almost all types of vaccines (WHO Regional Office for Europe (a), 2011). This is primarily due to parents’ uncertainty about vaccine safety as a result of media reports in recent years (UNICEF, 2009).

### Adult mortality

Among countries in USAID’s Europe and Eurasia (E&E) region,<sup>3</sup> Ukraine ranks 25th out of 28 countries in terms of life expectancy (USAID (a), 2010). When “healthy life expectancy” is taken into account, the average number of years that a person could expect to live in “good health,” data for Ukraine is also poor, equaled in this region only by Russia.

Life expectancy has decreased dramatically since independence. Figure 2.2 notes the sharp declines in life expectancy, particularly for men since 1990. The dramatic and growing difference in life expectancy between men and women leads to questions about how to adequately address the different health care needs of men and women.

**FIGURE 2.2. LIFE EXPECTANCY TRENDS, 1990–2009**



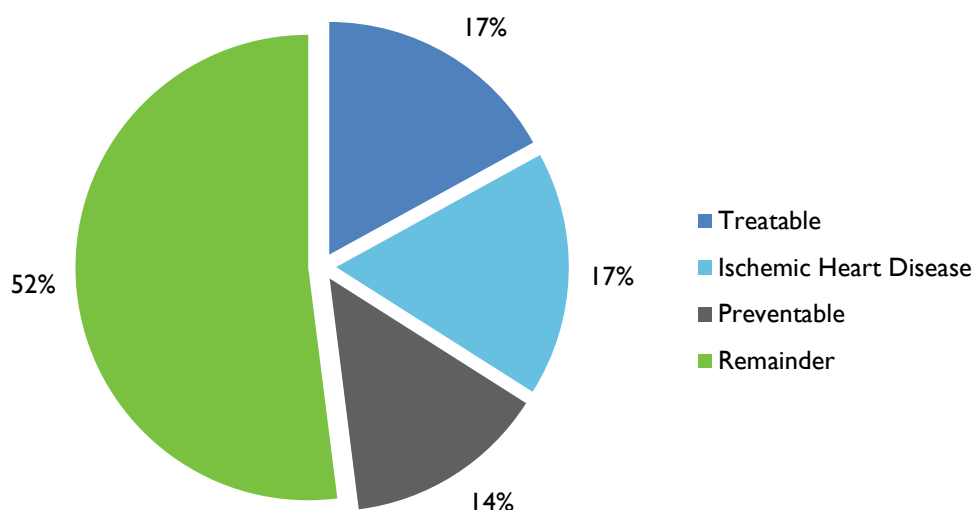
Source: World Bank Health Indicators, 2009.

The decrease in life expectancy, particularly for men, is closely linked to increases in non-communicable diseases, which account for 82 percent of all deaths. Heart disease and stroke cause the most deaths in Ukraine, followed by respiratory diseases and cancer (Menon, 2010).

<sup>3</sup> The USAID E&E region includes Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldova, Montenegro, Poland, Russia, Serbia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

Unintentional poisonings and injuries are also leading causes of premature death and disability among working age populations in Ukraine (Menon, 2010). The high mortality among men of working age is of critical concern in Ukraine – a demographic trend termed a “mortality crisis” by the World Bank (World Bank (d), 2010). Just under 50 percent of deaths before age 75 were avoidable (World Bank (a), 2009). Many of the causes of premature death and disease in Ukraine are linked to risk factors that are largely modifiable and preventable (amenable) such as tobacco and alcohol consumption and obesity (World Bank (d), 2010). See Figure 2.3.

**FIGURE 2.3. AMENABLE MORTALITY IN UKRAINE, 2004**



Source: Adapted from World Bank (c) 2009.

The decrease in life expectancy also reflects the health systems’ focus on episodic disease management, and insufficient emphasis on preventive health and primary care. Ukraine also has the highest rates of infectious diseases in Europe. WHO reports that HIV/AIDS and TB account for 90 percent of infectious disease deaths in Ukraine.

### **HIV/AIDS**

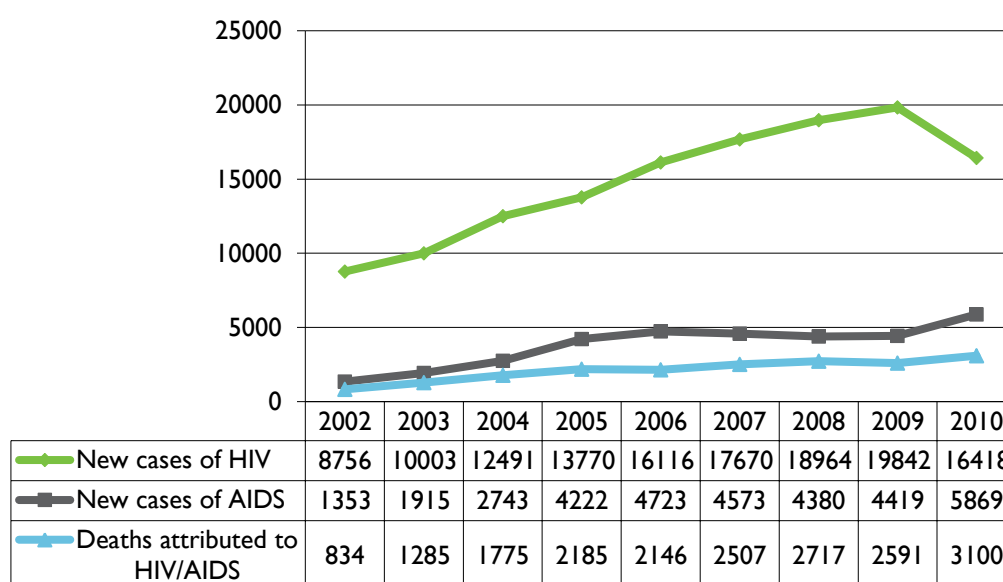
Ukraine has the highest prevalence rates for HIV/AIDS in Europe and the CIS, with 1.33 percent of the country’s population estimated to be HIV positive in 2010 (MOH, 2009). The Ukrainian epidemic has been driven largely by injecting drug use, and is characterized as a concentrated epidemic. Major epidemiologic features of the AIDS epidemic in Ukraine include (Alexandrin et al., 2010):

- 360,000 HIV-infected people aged 15 and over were living in Ukraine at the beginning of 2010.
- As of January 2010, 2,418 children with confirmed HIV status were under observation, although the rate of mother-to-child transmission in Ukraine in 2007 (6.2 percent) is relatively low.
- HIV infection rate among Ukrainian citizens in 2009 decreased slightly compared with 2008, from 1.16 percent to 1.11 percent, indicating some stabilization of the HIV epidemic situation in the country
- HIV/AIDS is concentrated among the most at-risk populations (MARPs), including injecting drug users, commercial sex workers (both men and women), men who have sex with men, and the sexual partners of these populations (UNAIDS, 2009).

- Data on HIV transmission since 1987 shows that the trends in HIV transmission have changed considerably: heterosexual transmission was the dominant mode of transmission between 1987 and 1994; this was followed by IDU between 1995 and 1998; from 1999 to 2005, heterosexual transmission and mother-to-child transmission increased significantly (Semegina et al., 2007). In 2008, official reports cited 40 percent of new HIV infections were related to injecting drug use, followed by 38.4 percent for sexual transmission, and 19.4 percent were related to mother to child transmission (UNAIDS, 2009).

As noted in Figure 2.4, from 2009 to 2010, the GOU reported a decrease in new HIV cases by 17 percent; however, new cases of AIDS increased by 22 percent, and deaths attributed to HIV/AIDS increased by 19 percent. Also during the period represented in Figure 2.4, new cases of HIV increased by 87.5 percent, and both new cases of AIDS and deaths attributed to HIV/AIDS increased nearly threefold.

**FIGURE 2.4. GOVERNMENT REPORTED NEW CASES OF HIV, AIDS, AND DEATHS ATTRIBUTED TO HIV/AIDS IN UKRAINE, 2002–2010**



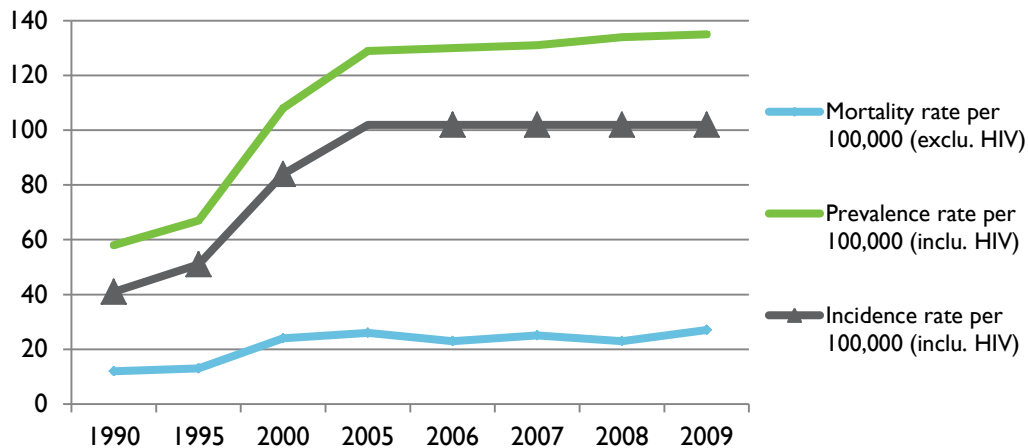
Source: Data from International HIV/AIDS Alliance in Ukraine: <http://www.aidsalliance.org.ua/cgi-bin/index.cgi?url=/en/library/statistics/index.htm>. Accessed 23 March 2011.

## 2.4 TUBERCULOSIS

Ukraine is noted for having one of the highest TB prevalence rates in Europe. Since Ukraine gained its independence in 1991, the number of TB incidents per 100,000 has increased by 153 percent, averaging an annual growth rate of 9 percent. In 2009, WHO estimates there were 46,000 new TB cases, including significant increases in strains of MDR-TB. TB is a significant cause of mortality in Ukraine, with mortality linked to the disease tripling since independence (Lekhan and Rudiy, 2007).

The TB mortality rate (excluding HIV) and TB prevalence rate (including HIV) have been increasing steadily since 1990 in Ukraine. The TB incidence rate (including HIV) peaked at 102 in 2005 and has remained at that level (WHO (a), 2010). See Figure 2.5.

**FIGURE 2.5. TB MORTALITY, PREVALENCE AND INCIDENCE (1990–2009)**



Source: WHO (a) 2010

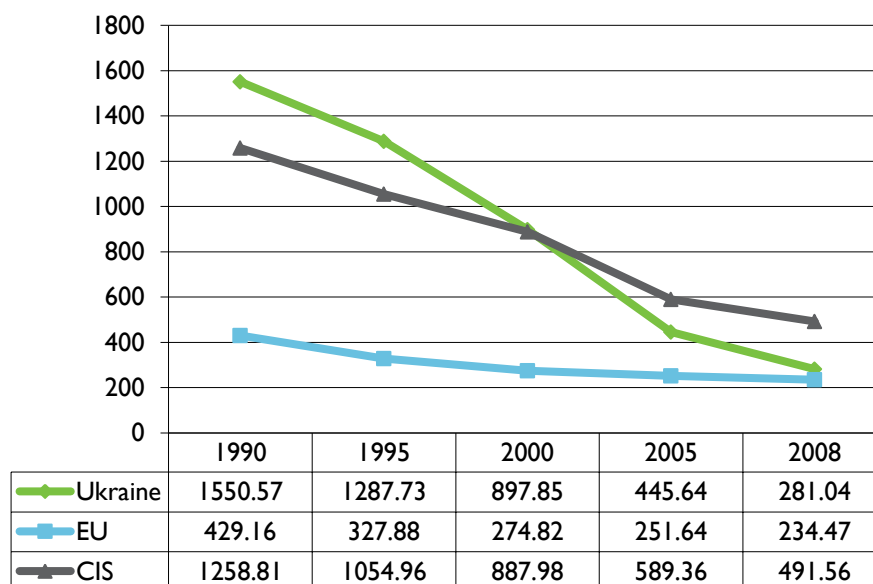
## 2.5 REPRODUCTIVE HEALTH AND FAMILY PLANNING

In the early 1990s, the Ukrainian government emphasized improving MCH, which led to significant decreases in infant and maternal mortality. The improvement in MCH is related to increases in immunization coverage (Menon et al., 2009) (though immunization rates may have decreased since 2009 (Caron et al., 2010)), greater availability of obstetric and gynecological (OB/GYN) services through increasing numbers of private facilities (Lekhan, Rudi, and Nolte, 2004), and decreases in the abortion rate, which was previously a leading cause of maternal mortality.

As depicted Figure 2.6, abortion rates have declined in Ukraine, to 281 abortions per 1,000 live births in 2008, which is similar to the abortion rates in the EU. However, this figure may be an underestimate, as abortions performed by non-MOH facilities may be underreported (John Snow International (JSI), 2009). Abortion decreases in Ukraine are associated with an increase in the number of contraceptive methods, and the availability of contraceptives, particularly at pharmacies (JSI, 2009).

WHO's Europe Office estimated that contraceptive prevalence is 66.7 percent for women ages 15–49 in 2008. Overall, contraceptive prevalence has remained relatively flat over the past 10 years. The availability of condoms and oral contraceptives has increased significantly in Ukraine since 2005 (JSI, 2009). USAID projects have implemented free condom and oral contraception distributions for vulnerable populations over the past decade.

**FIGURE 2.6. NUMBER OF ABORTIONS PER 1,000 LIVE BIRTHS UKRAINE, CIS, AND EU, 1990–2008**



Source: WHO Regional Office for Europe, 2008. European mortality database (HFA-MDB)

## 2.6 STRUCTURE OF HEALTH SYSTEM

As noted earlier in this chapter, the Ukrainian health system has retained its structure from pre-independence, when the health system in the Soviet Union was based on the Semashko Model. Thus, Ukraine has a highly centralized planning and administration system led by the MOH, the President, and the Cabinet of Ministers, with a hierarchy of facilities based on political administrative levels (rayon, oblast, and national/republic levels), and corresponding primary, secondary, and tertiary health care centers. Policies and decisions on the administration and rationing of health care in Ukraine are based on national health care norms and standards, system capacity, and demographics, as opposed to local health care needs.

Overall the health system is centered on episodic disease management, and provides less emphasis on preventive, primary and integrated health care services, which is reflected in the health system's current structure. There are separate health centers, procurement structures, and methods of care for TB, HIV/AIDS, women's health, oncology, and family planning outside of the overall health system. Thus patients' illnesses are often treated separately and distinctly from their overall health.

## 2.7 DECENTRALIZATION

The health system in Ukraine is decentralized, as oblast, rayon, and local governments are responsible financially and managerially for health service delivery within their political entity. However, guidance on planning health services is provided by the MOH. At the oblast and rayon levels, local health governance is subject to regulation by the MOH for compliance with health standards, and to the oblast and rayon governments for financial accounting and management. This creates a disconnect between programmatic and budgetary authority. See Section 3.2 Health Financing for details. Decentralization also led to the concentration of tertiary care at the oblast level (Lekhan, Rudyi, Nolte, 2004).

## 2.8 HEALTH SYSTEM REGULATION AND POLICY DEVELOPMENT

Regulation and policy development of the health system is shared among the MOH, the President and Cabinet of Ministers, and the Parliament. For more information on health system regulation and policy development see Section 3.1. Governance and Leadership.

## 2.9 HEALTH REFORM AND HEALTH SYSTEM STRENGTHENING

Since independence, Ukraine has lacked a comprehensive health reform implementation plan. Reforms to the health system have been promoted and adopted into legislation, but few of them have been implemented throughout the system. Though system changes have been applied with varying success, most notably the improvements in MCH, system strengthening has been undermined in the past by fragmentation in health policy development (between the MOH and executive) and the lack of continuity in health care administration.

In varying degrees, oblast and rayon authorities have been most active in health system strengthening, as they need to be innovative to ensure health service delivery given limited funding. Oblast and rayon health administrations have some limited flexibility to adjust health services regarding key health issues. Innovations and adjustments at the oblast and rayon levels are subject to central planning and regulation standards at the MOH.

The current administration has ambitious plans for significant health system reform, to improve health outcomes in Ukraine, but also in reaction to economic imperatives to rationalize the system, and pressure from the IMF and others to reform government services. Outside of improving the quality and accessibility of key health services, the reforms intend to change the budgetary model of the health system, in order to eventually transition Ukraine's health system to a social health insurance model. Priorities of health reform include: health financing reform, redefining the structure of health service delivery toward a primary health care (PHC)-focused model, improving quality and communication in the system; and improving emergency services. It is intended for the reforms to be implemented over a four-year period from 2010 to 2014. See Section 3.1 Governance and Leadership for more details.

### 2.10 DONOR INVOLVEMENT IN THE UKRAINIAN HEALTH SYSTEM

Although donor funding accounts for only 0.2–0.3 percent of total health spending in Ukraine, donors are important contributors to antiretroviral therapy (ART) and TB treatments for the health system and often provide support through local NGOs and civil society organizations. Numerous donor agencies also work on supporting family planning, reproductive health, child health (mainly UNICEF), and women's health. Key bilateral donors that work in Ukraine and provide programming related to HIV/AIDS, TB, and family planning include USAID, *Deutsche Gesellschaft für Technische Zusammenarbeit* (GTZ), the Swedish International Development Agency (SIDA), and the Swiss Agency for Development and Cooperation (SADC). Other important donors include the International Alliance for HIV/AIDS, the Clinton Foundation, the Soros Foundation, and the Foundation for the Development of Ukraine, established by the Ukrainian donor Rinat Akhmetov. Additionally, international organizations such as the World Bank, and WHO and other UN agencies provide key technical assistance to the MOH. A full list of key donors that provide programming in Ukraine and the work that they complete is found in Annex A.

Currently, Ukraine is implementing two Global Fund grants, one each on HIV/AIDS and TB. The US\$151 million Round 6 grant on HIV/AIDS has two Principal Recipients, the International HIV/AIDS Alliance in Ukraine and The All-Ukrainian Network of People Living with HIV/AIDS. The overall goal is to reduce



HIV transmission and HIV- and AIDS-related morbidity and mortality through interventions focused on MARPs. It began in 2007 and will run until the middle of 2012. The Ukrainian AIDS Centre of the MOH is a major sub-recipient of this grant. The Foundation for Development of Ukraine, a private Ukrainian foundation, is the Principal Recipient for the US\$103.5 million Round 9 grant on TB. This five-year grant was signed in early 2011, with the goal of contributing to reducing the TB burden through expanding and enhancing access to high quality TB services. The MOH National TB Program is a major subrecipient for this grant. A Round 10 grant of US\$305.5 million on HIV/AIDS has also been approved recently, which is planned to take effect in late 2011 or early 2012. The co-Principal Recipients for this new grant are the Ukrainian AIDS Center, International HIV/AIDS Alliance in Ukraine, and the All-Ukrainian Network of People Living with HIV/AIDS.



# 3. FINDINGS

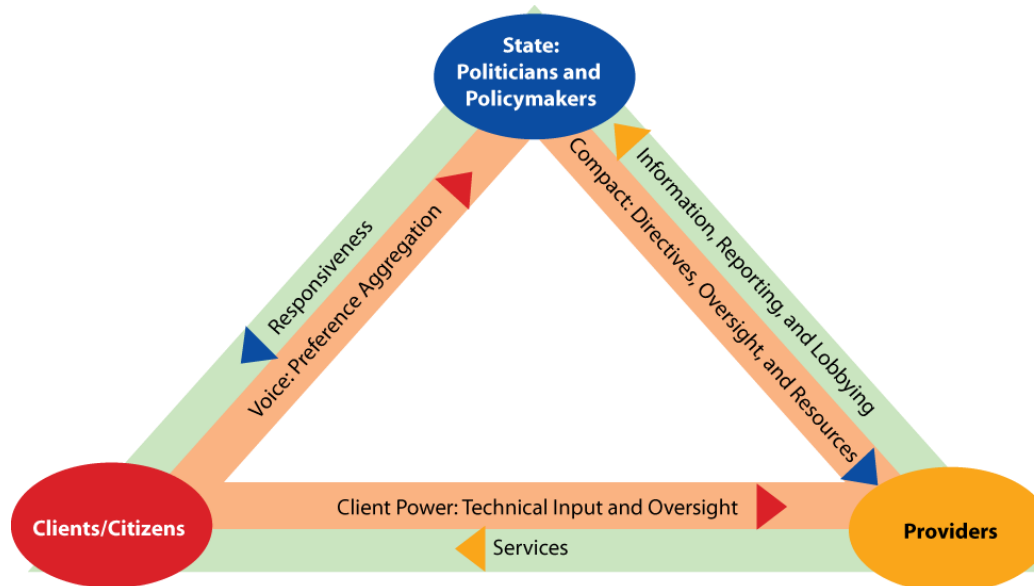
## 3.1 GOVERNANCE AND LEADERSHIP

Effective governance of a health system can ensure that rules for policy development, programs, and practices for the provision of care are formulated and implemented to achieve health sector objectives such as improvements in health status through more equitable access and availability to quality health services and preventive and promotion programs; patient and public satisfaction with the health system; and fair financing that protects against financial risks for health care users. According to the conceptual framework governing this assessment (Brinkerhoff and Bossert 2008), health governance involves three primary sets of actors:

1. State actors: Public sector health bureaucracy actors are central to governing the system.
2. Health service providers: Depending upon the particulars of a given country's health system, this set mixes public, private, and voluntary sector providers.
3. Beneficiaries, service users, and the general public: This set can be further categorized in a variety of ways: for example, by income, by location, by service, by disease or condition, or by cultural beliefs.

The evaluation of governance and leadership refers to how well these actors are able to carry out the activities that support the other components of the health care system. Criteria include voice and accountability, political stability, government effectiveness, rule of law, regulatory quality, and control of corruption. This framework is depicted in Figure 3.1.1.

**FIGURE 3.1.1. KEY ACTORS AND RELATIONSHIPS GOVERNING A HEALTH SYSTEM**



Source: Brinkerhoff and Bossert, 2008.

### 3.1.1 OVERVIEW

Ukraine is a republic, governed by executive (the Cabinet of Ministers and the President), legislative (the *Verkhovna Rada*, or Parliament), and judicial branches. Constitutional changes enacted in 2010, including giving the President greater power to dismiss the Parliament, have resulted in a greater concentration of power with the presidential administration. The country is further governed by 24 oblasts (regions) and two cities with special status (Kiev and Stevastopol). The oblasts are divided into 490 districts (rayons). Within the rayons are “municipalities,” that is, cities and villages. Administrators in the oblasts and rayons are appointed by the President. The Republic of Crimea is an autonomous region with its own constitution. The President of Ukraine appoints Crimea’s Prime Minister.

Viktor Yanukovich, elected President in early 2010, has publicly declared that economic reform, including health care reform, is a priority of his government. By the time this HSA was conducted, a number of changes had been made in the structural organization of the ministries, including the MOH, and additional reorganization anticipated.

Ukraine continues to rank relatively poorly on the Transparency International Corruption Perceptions Index, which measures perceptions of corruption in the public sector. Ukraine scored a 2.4 in 2010, with 10 being a score for a country that is “very clean.” While this is an improvement over the country’s 2009 score of 2.2, it ranks Ukraine 14th out of 19 countries in the Eastern European and Central Asia Region (Transparency International, 2010).

Ukraine was one of the countries hardest hit by the recent global economic crisis; it experienced a decline in GDP of more than 15 percent in 2009 (World Bank (a), 2009). It is a relatively difficult place to do private business and ranks 145th out of 183 countries in the World Bank’s 2011 Doing Business Report (World Bank and International Finance Corporation, 2010). These are contributing factors to the limited scope of the private health sector.

The Ukraine Economic Reforms Program for 2010–2014, drafted by President’s Committee for Economic Reforms (April 2010), outlines the government’s priorities and strategies for comprehensive economic reform, including reform of the health sector. In March 2011 (as this assessment took place), the MOH was developing four draft laws related to health reform. These plans are the most comprehensive health sector reforms embarked upon since independence.

The assessment team found knowledgeable and committed professionals within government at all levels, yet structural issues undermine effective governance and leadership in the system. Inadequate control over informal payments impedes performance in all five performance criteria areas (equity, access, quality, efficiency, and sustainability). Frequent changes in MOH management threatens its governing ability. Financing norms serve to dilute authority of health managers from the national government down to the facility level.

#### **Nongovernment actors and their role in the system**

Non-government actors include provider associations, NGOs and other civil society organizations, and the media. Provider associations are grouped by specialty and vary in size and services for members. While they have limited capacity to offer member services, they do advocate with the government and provide technical updates to members. These associations advise the MOH on policy and planning via working groups on special topics, but do not have licensing authority or other official sanction to self-regulate members.

There are over 800 registered NGOs in the country with a reported 2 million members. Of these, there are more than 20 national patients groups and over 100 local patients’ groups in Ukraine representing interests related to non-communicable diseases alone.

Media regularly reports on health care issues, and displays a relatively high level of technical ability to report on the sector. There are perceptions that some publications may report in a manner that reflects one political party in a more favorable light than another.

Many civil society representatives expressed frustration with their relationship with the government and cynicism about government more generally. Still, the assessment team found that civil society has begun to play a productive role in the health system. For example, a recent drop in prices of government-procured antiretroviral drugs (ARVs) may have been one result of civil society pressure for procurement reform. Tension between government and civil society groups is inevitable, particularly in countries like Ukraine with only recent histories of such relationships, because they take time to develop. Frustration is understandable when the relationship isn't perfect, yet in Ukraine there are positive signs of productive outcomes of the relationship on the health sector.

### Legal framework governing health care delivery

A framework of legislation developed to govern the health sector is outlined in Table 3.1.1.

**TABLE 3.1.1. LEGISLATION AND POLICIES GOVERNING THE HEALTH SECTOR**

Type	Description	Comments
Constitution of Ukraine	States that health services are provided to the population for free, and that health facilities cannot be abolished.	Health reform is limited by these statements, particularly given that the current and foreseeable government budget cannot cover all health needs of the population for free, and maintain the large health infrastructure.
Laws	In addition to the foundational Law of Ukraine "Principles of Legislation for Public Health in Ukraine" there are over 24 other laws specific to health care delivery in Ukraine, plus a number of public financing and taxation laws that impact the system. For a full listing and description of these laws see the website of the MOH ( <a href="http://www.gov.ua">www.gov.ua</a> )	Laws governing HIV/AIDS and TB have recently been developed (the HIV/AIDS law is enacted but the TB law is not yet passed as of the writing of this report) that adhere to standards considered international best practice. There are no major policy barriers to access and delivery of quality family planning services. Four laws are in draft form which will lay the foundation for health reform.
Decrees	Decrees are issued by the President and are used to address specific and time-sensitive legislative issues. They are a common method of legislating in countries of the former Soviet Union and have been overused in some countries.	There are a few decrees related to the health sector in Ukraine. The current health reform legislation is not being issued through decree, but rather through laws developed by the MOH and the Parliament, thus allowing more public debate and political debate, but slowing the process of enactment.
Orders/Regulations	These are created by the MOH, often with working group participation consisting of government representatives and other key experts and stakeholder representatives from outside the government	Orders and regulations follow the creation of laws to delineate the methods for administering certain health programs. They can be formulated and updated much more easily than laws.
Protocols	Developed by the MOH with inputs from research institutions, medical universities, and key experts.	The assessment team had mixed findings regarding protocols that govern the delivery of health services. While there is an expectation that they be evidence-based, this is not consistently the case and can vary significantly by disease area.
Methodological Recommendations	Provided by the MOH to facilities and oblast, rayon, and municipal health administrations	These provide guidance on standards of care that are communicated via written order. While the guidance is expected to be followed, and there is evidence that facilities and practitioners make efforts to do so, the method of communication and lack of follow-up to ensure recommendations are followed may impede effective implementation.

The political structure of the Ukrainian government by level is presented in Table 3.1.2 along with the corresponding structure of the health system. The President and Parliament are elected at the national level but all state actors below are appointed with the exception of city mayors, who are elected.

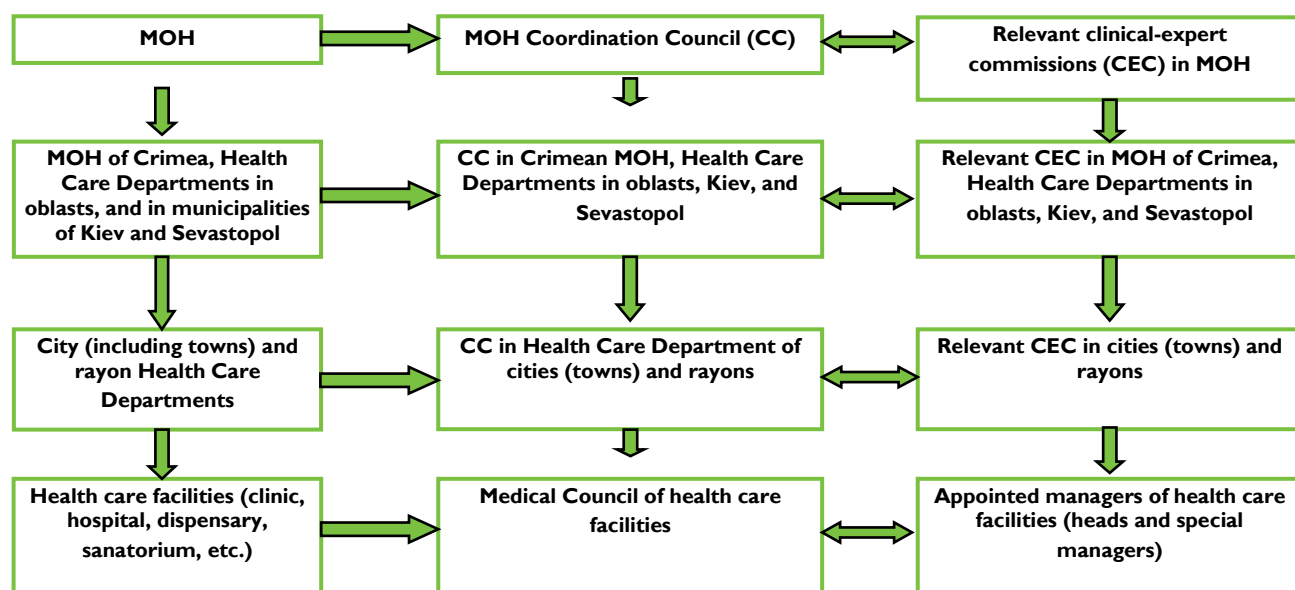
**TABLE 3.1.2. UKRAINIAN POLITICAL STRUCTURE AND HEALTH SERVICE DELIVERY SYSTEM BY LEVEL**

Level	Political Structure		Public Health System	
	Executive	Legislative	Governance	Health Facilities
<b>National</b>	President: Elected; Presidential Committee on Economic Reform	Parliament (Verkhovna Rada)	MOH, State Service for HIV and other Socially Dangerous Diseases, State Sanitary and Epidemiological Service	<ul style="list-style-type: none"> <li>Highly specialized centers (including AIDS and TB) and institutions</li> <li>- University clinics</li> <li>- Sanitary and Epidemiological Service Laboratories</li> <li>- Education facilities</li> <li>- Laboratories</li> </ul>
	Ministries by sector appointed by President	Parliamentary committees on sectors (health, economy, etc.)		
<b>Regional (oblast)</b>	Governor appointed by the President	Self-governing council	Oblast health administration office	<ul style="list-style-type: none"> <li>Oblast prevention and treatment facilities/polyclinics</li> <li>- Specialized centers</li> <li>- Oblast hospitals</li> <li>- Emergency medical care</li> </ul>
	Governor appoints staff for regional sector directorates (health, education, etc.)			
<b>Municipal</b>	Mayor: Elected	Self-governing council	Municipal Health Administration	<ul style="list-style-type: none"> <li>City outpatient prevention and treatment facilities/polyclinics</li> <li>- Specialized centers</li> <li>- City hospitals</li> <li>- Emergency medical care</li> </ul>
<b>District (Rayon)</b>	Administrator appointed by governor	Self-governing council	Rayon health administration office	<ul style="list-style-type: none"> <li>Rayon/city hospitals</li> <li>- Polyclinics</li> <li>- Rural sectoral hospitals</li> <li>- General practice and family medicine clinics</li> </ul>
	District manager and office for health, education, etc.			
<b>Village</b>	Head of Self-Governing Committee	Self-governing council	Community health committees	<ul style="list-style-type: none"> <li>- Feldsher-midwife stations</li> </ul>

## Regulation and quality control

Ukraine has a developed system of regulation and quality control in the health sector; however, implementation can be uneven. All public and private facilities must meet registration and accreditation standards, which are strictly enforced at the time of opening. Renewal is a less stringent process. Pharmaceutical regulations meet international standards, and existing policies and procedures seem to adequately enforce these regulations. The structure of quality control of services is depicted in Figure 3.1.2. Note that at the facility level, there is not a system of supportive supervision, but rather one of quality control mechanisms that can be punitive.

**FIGURE 3.1.2. QUALITY CONTROL STRUCTURE FOR HEALTH SERVICE DELIVERY**



Source: Adapted from the MOH Order number 163, February 24, 2010.

### 3.1.2 POLICY FORMULATION

Regulation and policy development of the health system is shared among the MOH, the President and Cabinet of Ministers, and Parliament. The MOH is responsible for providing data and information for setting national health policy, and the planning and management of the health system. The President and Cabinet of Ministers determine how the health system is implemented, given the policies that the administration sets forward. Parliament determines health care budgets and financing, and directs Ministry of Finance (MOF) funding allocations to oblasts and rayons. The Ministry of the Economy also advises this process; new legislation may be introduced by the MOH to Parliament, and may be a result of a working group collaborative process. The President may also provide “emergency legislation” to the Parliament for its consideration. In practice, the Office of the President and the Prime Minister have the ability to wield a great deal of influence over MOH draft legislation.

### 3.1.3 VOICE

The public and stakeholders have capacity and opportunity to advocate for health issues and participate effectively with public officials in the establishment of policies and plans for health services. However, this varies significantly with disease/health issue, and is clearly stronger where there is donor backing and interest (specifically in the area of HIV/AIDS). Civil society, technical experts, and health services users

have capacity/opportunity to use, analyze, and provide feedback to government on health sector goals. The MOH hosts a number of disease or health issue-specific working groups comprising technical specialists and relevant stakeholders such as provider associations and patients groups.

### **3.1.4 RESPONSIVENESS**

Government regularly solicits input from the public and concerned stakeholders. However, the government appears to be more responsive in areas where donors are active and NGOs or other groups are organized.

National government data, budget, and goals are publicly available and communicated to stakeholders. The MOH website and other government websites post much of this information, in a timely manner, although not always in a form that is user-friendly to non-specialists. Some data could be organized in a more accessible manner. See Section 3.6 Health Information Systems for more information.

### **3.1.5 TECHNICAL OVERSIGHT**

The MOH is the main regulatory body for the health system, and is responsible for managing and monitoring the health system. At the regional and local levels, facilities are financially accountable to the government authority at that level, as typically more than 70 percent of their budget comes from that entity. This disconnect between funding and oversight adversely impacts governance and the ability of health authorities to lead the system.

Civil society, including provider groups, NGOs, and the media, provide a watchdog function over health providers and institutions in the way they deliver services in terms of the aforementioned performance criteria. Public and concerned stakeholders through community health committees in Ukraine have opportunities to meet with health managers to raise issues about performance. However, procedures for fighting bias and inequity of access need to be strengthened. For example, recently reported stock-outs of ARVs highlighted a disconnect between the ability of patients to effectively express their needs in a manner that produces a desired response at the national level.

### **3.1.6 SERVICE DELIVERY**

The organization and financing of health service do not provide incentives to improve performance in delivery of services. Service provision is fragmented in vertical systems with separate budgeting and reporting. Line-item-based budgeting is a disincentive for efficient/rational service provision. Data on the allocation and utilization of resources and information are frequently inaccurate and may be falsified. Accurate figures are generally unavailable (because they are nearly impossible to create in the existing system) to the public and concerned stakeholders. Information on the quality and cost of health services also is not publicly available, making it difficult for clients to make informed decisions about health care providers, although they do have the right to choose their PHC provider. Information on program results, patient satisfaction, and other health-related topics is available, although inconsistently and at varying levels of accessibility to providers and clients. Even when it is available, providers have little authority to make decisions based on this evidence/information.

### **3.1.7 INFORMATION, REPORTING, AND ADVOCACY**

Providers do not provide wholly accurate or relevant information, including financing, surveillance, and program data to government in a usable fashion for sufficiently effective monitoring of the health system. Service providers do not regularly use evidence on program results, patient satisfaction, and other health-related information to lobby government officials for policy, program, and /or procedural changes. NGOs with international support do this, however. See the Section Health Information Systems below for more details.



### **3.1.8 DIRECTIVES, OVERSIGHT, AND RESOURCES**

Government provides overall direction to the health system through clear legislation, policies, and regulations. There is evidence that government officials rely on research and evaluation studies and existing health information system (HIS) when they formulate laws, policies, strategies and operational plans, regulations, procedures, and standards for the health sector; however, this is procedure is not sufficiently followed. Health sector regulations, protocols, etc. are known and enforced in training institutions and facilities. Procedures exist for reporting, investigating, and adjudicating misallocation or misuse of resources, although they are unevenly used and enforced.

### **3.1.9 DONOR INVOLVEMENT**

Donors and international organizations generally enjoy collaborative relationships with the GOU. USAID recently signed a five-year framework for 2011–2015, to reduce HIV transmission through IDU, improve the quality and cost-effectiveness of HIV programming targeting MARPs, and strengthen national and local capacity concerning HIV/AIDS programming (USAID, 2011). Donors often provide support through local NGOs and civil society organizations and have thus contributed to the growing role of civil society in the health sector.

International organizations such as the World Bank and WHO and other UN agencies provide key technical assistance to the MOH. It is expected that the World Bank and WHO will continue to provide technical support to the GOU as it embarks on its ambitious health reform agenda. A full list of key donors that provide programming in Ukraine and the work that they complete is found in Annex A.

### **3.1.10 GOVERNANCE AND LEADERSHIP: HIV/AIDS, TB, AND FAMILY PLANNING PROGRAMMING**

HIV/AIDS, TB, and family planning/reproductive health (FP/RH) services are administered through vertically structured systems funded through the MOH. The subsequent Service Delivery and Health Financing sections go into more detail on the delivery structure and the financing flows.

The State Service for HIV, TB and Other Socially Dangerous Diseases oversees HIV and TB programming and coordinates donor funds and technical support for the programs. According to the State Service, there is a plan for it to be elevated to the level of a government ministry. The National AIDS and TB Centers implement the nation's response to the respective diseases. The vertical nature of these systems protects their autonomy and funding and allows international donors to easily identify entry points for technical support. However, the two centers do not communicate well with each other, nor are they well-coordinated with PHC, thus limiting access to testing and treatment. NGOs provide essential outreach, prevention, and supportive services. However, these services are not integrated (or formally connected via a contract) with the government health care system; a closer connection would improve the effectiveness of service delivery.

Family planning is administered through the state reproductive health programming. At the time of this assessment, the Department of Family Planning (formerly in the recently dissolved Ministry of Youth and Sports) was without a ministerial “home.”

### **3.1.11 NOW IS THE TIME FOR REFORM**

Since independence, Ukraine has lacked a comprehensive health reform implementation plan – health system reforms are often promoted and even adopted into legislation, but few are actually implemented. However, economic and political pressures are coming together to motivate the GOU to take steps to increase efficiencies, effectiveness, and access to quality health services. The current administration has ambitious plans for significant health system reform, partly to improve health outcomes, but also in reaction to economic imperatives to rationalize the system and pressure from the IMF and others to

reform government services. In addition to improving the quality of and access to health services, the reforms intend to change the budgetary model of the health system, ultimately transitioning to a social health insurance model.

The health reform program has three major directions:

1. Optimize the network of health care institutions

- Reduce the number of empty beds
- Rationalize service provision at all levels
- Define clearly primary, secondary, and tertiary care levels

2. Reform health financing

- Give facilities more autonomy to manage their finances and incentives to do so
- To this end some costing of hospital services has been done at the national level by the Central Revision and Audit Committee (KRU) of Ukraine

3. Strengthen the system of standards and quality control at the central level

**Key actions that the reforms are proposing to take include:**

- Providing greater funding for and strengthening the role of PHC;
- Pooling funds for PHC at the local level, for secondary and tertiary care at the rayon and oblast level, and state-run specialized centers and clinics at the national level;
- Transitioning from line items to a global budget;
- Creating incentives for healthy lifestyles including raising taxes on alcohol and tobacco products;
- Increasing cooperation between various health units concerning patient care;
- Allowing private sector health services to develop and compete for funding from the public sector;
- Implementing clinical pathways, referral systems; and
- Ensuring adequate health staffing based on community needs and the type of health care that is offered.

The reforms are planned to be implemented over a four-year period from 2010 to 2014. The initial steps, in 2010, were to implement changes to health financing, licensure, and accreditation. The second group of steps, to be completed by the end of 2012, is to complete a pilot program of the reforms in Dnipropetrovsk, Donetsk, and Vinnytska oblasts, and create legislation to support the reforms. The third series of steps, to be completed in the pilot regions by 2014, will lead to unified costing of health services, developing a contractual relationship between providers and payers, and introducing mandatory social health insurance.

**Developing and implementing health reform policies**

The Ukraine Economic Reforms Program for 2010–2014 (published April 2010) outlines the government's priorities and strategies for reform of the health sector. The economic reform committee consists of the President's Office, Prime Minister's Office, other ministers, members of Parliament, and other experts. Each of the 21 areas of reform has a working group; the MOH chairs the health working group, which comprises MOH experts and outside experts. It operates with support of the National Economic Reform Committee within the President's Office. The MOH has drafted health reform legislation that was reviewed by international specialists and posted for public comment. The legislation reflects the committee's health reform agenda, including the pilot region implementation plans. Once the

MOH incorporates comments and completes the legislation, it will be submitted to Parliament's health committee and then to full Parliament for a vote.<sup>4</sup>

Each oblast in the country has its own economic reform committee, which receives some direction from the national reform committee. The oblast health reform committee is chaired by the Deputy Regional Governor in charge of the Social Sector, who works closely with the oblast health department head in implementing the health care reforms. Each committee has its own monitoring office. The three pilot oblasts have begun taking action according to the draft legislation before it has been passed as law.

### **Key Challenges to Health Reform**

The GOU, as it embarks on the most ambitious health reform agenda since independence, faces a number of challenges.

**The problems in the health system were not tackled effectively in the past due to a lack of leadership** – even now leadership of this new reform agenda faces significant challenges. Health reform can be politically risky. Reform is challenging, often painful, and takes years to effectively implement and show results. Populations are sensitive to changes in the way their health care is delivered and purchased. Since independence, Ukraine has experienced political instability that has hindered national-level government leadership from pursuing significant health reform. In addition, frequent structural and personnel changes at the MOH and the current financing and budgeting system undermine the ability of national-level leadership to shepherd the health reform process.

**Government funds for health are limited.** The GOU wants more and better results for the same amount of money. Achieving greater efficiency, combined with increased access and improved quality, will take careful management of available resources.

**A number of legislative and policy hurdles must be overcome on the path to a more responsive and efficient health care system.** There is a constitutional clause that states that “health care is provided by the government free of charge.” The constitution also states that the total number of health facilities may not be reduced. There are a number of draft laws in development that address the specifics of health reform, yet some actions are being taken in the absence of their enactment.

**Ukraine's health workforce is not aligned to the critical health care needs of the population** or to those needs identified by its health reform agenda – and workforce realignment takes time and significant resources. There is a 20–30 percent vacancy rate in some key positions (TB doctors, for instance) and an overall shortage of family medicine doctors.

These challenges to government are on top of additional systemic constraints – a fractionalized and highly acrimonious political environment, widespread use of informal payments, current health financing and budgetary system, and weak monitoring and evaluation (M&E) systems.

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<sup>4</sup> Since the time this assessment was conducted, the city of Kiev was added to the three pilot oblasts as a fourth geographic area for reform implementation, and the law governing the pilot reform implementation was passed.

### 3.1.12 STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS (SWOT) ANALYSIS

**TABLE 3.1.3. SWOT ANALYSIS FOR GOVERNANCE**

<b>Equity, Access, Efficiency, Quality, and Sustainability</b>		
Strengths and Opportunities	General Health Services	<ul style="list-style-type: none"> <li>The process of decentralization has been initiated</li> <li>There is political support at the highest levels for health care reform</li> <li>Health reform plan reflects international best practices and lessons learned from the region.</li> <li>Civil society plays a healthy and active role</li> <li>Provider and patients groups have ability to voice concerns and advocate policies</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>Global Fund, PEPFAR, and Partnership Framework language promoting system strengthening</li> <li>International, evidence-based protocols</li> <li>Vertical programming may help protect funding for services</li> </ul>
	TB	<ul style="list-style-type: none"> <li>The Global Fund Round 9 will strengthen the capacity of the State Service on HIV, TB and Socially Significant Diseases to monitor and evaluate TB programming</li> <li>Vertical programming may help protect funding for services</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>No policy impediments to family doctors offering family planning counseling</li> <li>Vertical programming may help protect funding for family planning</li> </ul>
Weaknesses and Threats	General Health Services	<ul style="list-style-type: none"> <li>Financial management practices do not adequately discourage informal payments and nontransparent procurement and budgeting</li> <li>Information on planning, operations, and financing is not sufficiently available</li> <li>Lack of ability of civil society and elected officials to hold health sector actors accountable</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>Inadequate procurement and forecasting practices, combined with poor provider/government reporting relationships result in stock-outs of life-saving drugs</li> <li>Substitution therapy is politically contentious</li> <li>Ministry of Interior pursuit of patient and provider information stigmatizes patients, may impede access to care</li> </ul>
	TB	<ul style="list-style-type: none"> <li>Inadequate coordination between vertical HIV and TB services</li> <li>Management of TB does not adequately serve to prevent MDR-TB</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>Family planning does not have a stable organizational “home” within the health care system, making management and M&amp;E challenging</li> </ul>

## 3.2 HEALTH FINANCING

WHO defines health financing as the function of a health system concerned with the mobilization, accumulation and allocation of money to cover the health needs of the people, individually and collectively, in the health system. The purpose of health financing is to make funding available and establish appropriate financial incentives for providers, to ensure that all individuals have access to effective public health and personal health care (WHO 2000). Health financing includes three inter-related tasks:

- **Revenue collection** is concerned with the sources of funds for health care, the types of collection approaches, and the agents that collect these revenues. All funds for health care, excluding donor contributions, are collected in one way or another from the population.
- **Pooling of funds** involves accumulation and management of funds collected from individuals or households in a way that helps to ensure greater access of individuals to needed health care and protect them against the risk of having to pay the full costs of health care out-of-pocket in the event of illness. Pooling is traditionally known as the “insurance function” within the health system.
- **Purchasing of health services** is the mechanism by which the public and private agencies that hold financial resources allocate them to those who produce health services for their beneficiaries. Purchasing can be done passively (following predetermined budgets, for example) or strategically (by continuously seeking low-cost and high-value services).

For good performance of the health system, the financing agents need to generate an appropriate amount of revenues to support a sustainable provision of health care; pool risk effectively to facilitate maximum possible access of citizens to health services; create appropriate incentives for providers to address health needs in the best possible way; and allocate resources to effective, efficient, and equitable health interventions and services. This section analyzes the financing component of the health system in Ukraine, based on the conceptual premise delineated above.

### 3.2.1 OVERVIEW

Ukraine inherited from the Soviet system a complex, multi-tiered health care system designed to ensure universal coverage of the population with health services financed and provided by the state. The basic feature of the Semashko Model is a centralized financing and management approach, established on the principles of a rigid input-normative based, line-item specific budgetary allocation of state resources across health facilities and programs. The system had initial success in attaining high coverage to address urgent health care needs, yet over time these strategies resulted in the build-up of an unmanageably expensive and extensive health infrastructure, disproportionate distribution of available resources between outpatient (preventive) and inpatient (curative) care, and finally, de-motivation of health providers and deterioration in quality of health care.

Severe economic crisis during the first decade of Ukraine’s independence (1991–2000) challenged policymakers to avert the collapse of the public health system. This led to some decentralization of state-managed health responsibilities, limitations to the extent of state-guaranteed free medical care, some reductions in inventory (hospital beds, medical institutions, staff), and mobilization of additional resources by formalizing private payments and private provision of health services. Nevertheless, the basic organization and financing of health care were not changed significantly. The health system in today’s Ukraine is meant to be financed from government revenues and provide universal access of citizens to the free delivery of a guaranteed service package at state-owned medical facilities. Yet, in reality, the system meets neither commitment.

### 3.2.2 THE HEALTH FINANCING PROCESS

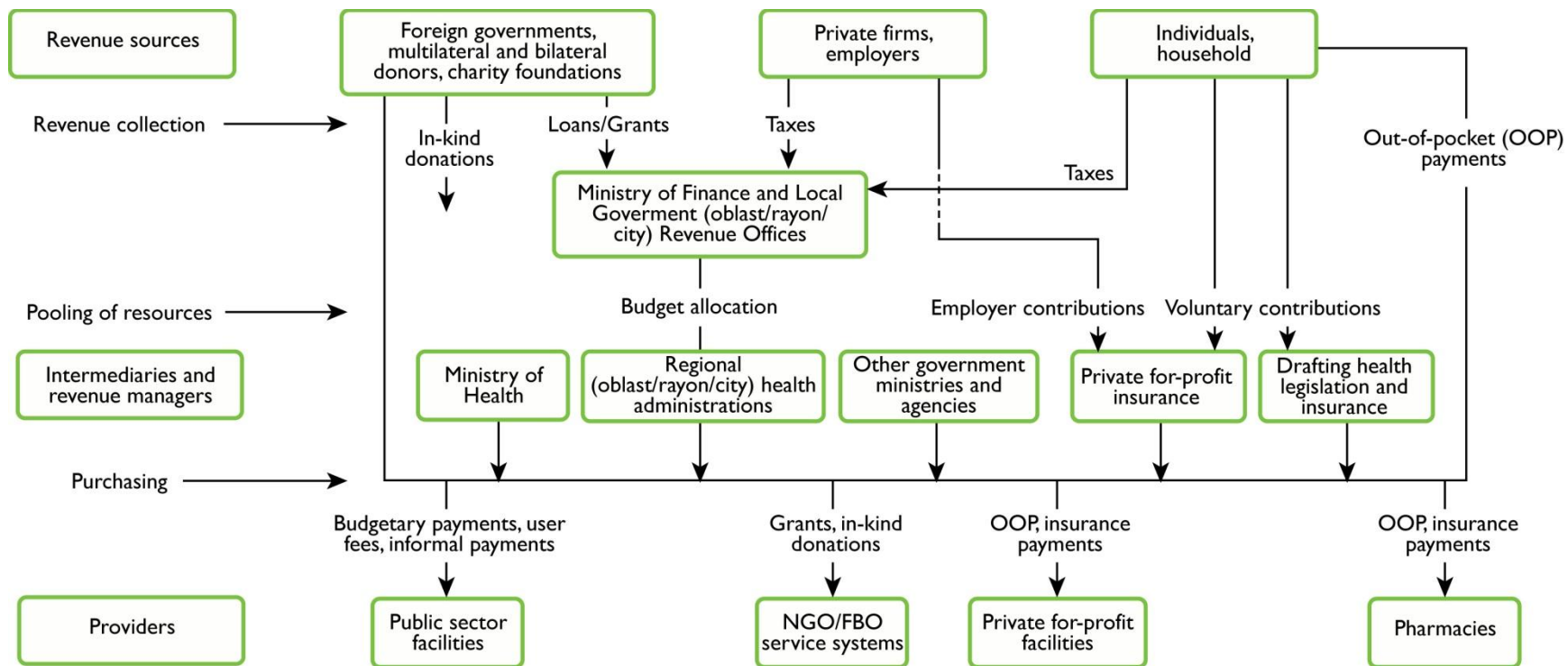
The MOH manages the health care system according to a rigid administrative, budgeting, and accountability hierarchy. This structure is maintained even though most health facilities are owned by the different levels of government and most spending is done by them. The MOH directly finances only vertically managed services such as oncology, family planning, MCH, HIV/AIDS, and TB services. In addition to the MOH-run structure, the ministries of Defense, Transport, and Internal Affairs operate their own health care facilities that provide services to their employees and family members. Health care in the penitentiary system is operated by the Ministry of Justice. These ministries have budgets separate from the MOH, allocated by the MOF.

The overwhelming majority of medical and preventive services are provided by government health facilities, although there is a small and growing number of private health care providers. Most pharmacies in the country are privately owned and managed. These pharmacies serve as the main source of medicines for Ukrainians. For-profit private providers are financed mainly by out-of-pocket payments of consumers and do not have access to public funds. There are also some nongovernmental, faith-based, and civil society organizations, mostly limited to providing HIV/AIDS, TB, family planning, and MCH services. They operate mainly on funds received from donor agencies, and generally do not access public funds.

Transition from a highly centralized financing approach to an abruptly decentralized one in the 1990s was not complemented by any reform in the fundamental organization and structure of health care delivery or in budgetary allocation principles. Each local-level health directorate – some 692 at the oblast, rayon, and municipal levels – is responsible for the health facilities in its catchment area and is functionally subordinate to the MOH, but managerially and financially answerable to the respective local government. This division of accountability sometimes makes for ambiguous health policy implementation: while the MOH develops national health policy, implementation may be affected by local events, and the health financing system is fragmented. Also, the decentralization in its existing form has impeded integration of different levels of overlapping service provisions (Lekhan, Rudyi, Richardson, 2010; World Bank (a), 2008). To fulfill the delegated functions (i.e., education, health, sports), all local governments are provided their corresponding shares of tax revenues. In order to redress the resource inequities across well-off and worse-off oblast and rayon governments, these budgets are augmented or reduced by a formula-based equalizing amount.

The MOF prepares the annual draft state budget, including the health care sector, which is then submitted to the Parliament for approval. The MOF sets the requirements that state institutions (including health care facilities) must follow in formulating and implementing their individual budgets. Funds are pooled at the national level and at local (oblast, rayon, and municipal) levels – local governments retain a proportion of the taxes collected in their respective territories to fund health and other social services. Health allocations and payments are made according to strict line-item budgeting procedures and input norms. This means payments are related to the capacity (e.g. number of beds) and staffing levels of individual facilities rather than to the volume or quality of services provided (Lekhan, Rudyi, Richardson 2010). See Figure 3.2.1 on Health Care Funding Flow in Ukraine.

**FIGURE 3.2.1. HEALTH CARE FUNDING FLOW IN UKRAINE**



Source: HSA team

Note: OOP = out-of-pocket, FBO = faith-based organization

### 3.2.3 REVIEW OF KEY HEALTH EXPENDITURE INDICATORS

Some key health expenditure indicators for Ukraine together with the corresponding comparisons for the ECA region as well as those for the countries in the equivalent income group are summarized in Table 3.2.1.

**TABLE 3.2.1. SELECT HEALTH EXPENDITURE AND ECONOMIC INDICATORS, WITH REGIONAL AND INCOME-GROUP COMPARISONS, 2007–2008\***

Indicators	Country Data	Average Value of Regional Comparators	Average Value for Income-group Comparator
	Ukraine	ECA	Lower Middle Income**
GDP per capita in US\$	1,156	2,649	1,451
GDP growth in %	2.10	5.41	5.25
Total health expenditure (THE) as % of GDP	6.80	6.45	6.08
Per capita expenditure on health in purchasing power parity (PPP)-adjusted international dollars***	475.37	608.65	236.54
Public (government) expenditure on health as % of total government expenditure	9.19	10.96	9.79
Public (government) expenditure on health as % of THE	57.59	56.57	57.43
Donor contribution as % of THE	0.27	2.50	10.84
Private expenditure on health as % of THE	42.41	43.43	42.57
Out-of-pocket expenditure as % of private expenditure on health	92.45	90.07	84.54
Out-of-pocket expenditure as % of THE	39.20	39.28	36.91

Source: World Bank (c), 2010

\* GDP per capita, GDP growth, and THE as % of GDP are as of 2008, all other data is for 2007.

\*\* Lower middle income countries represent an average per capita income ranging between US\$996 and US\$3,945.

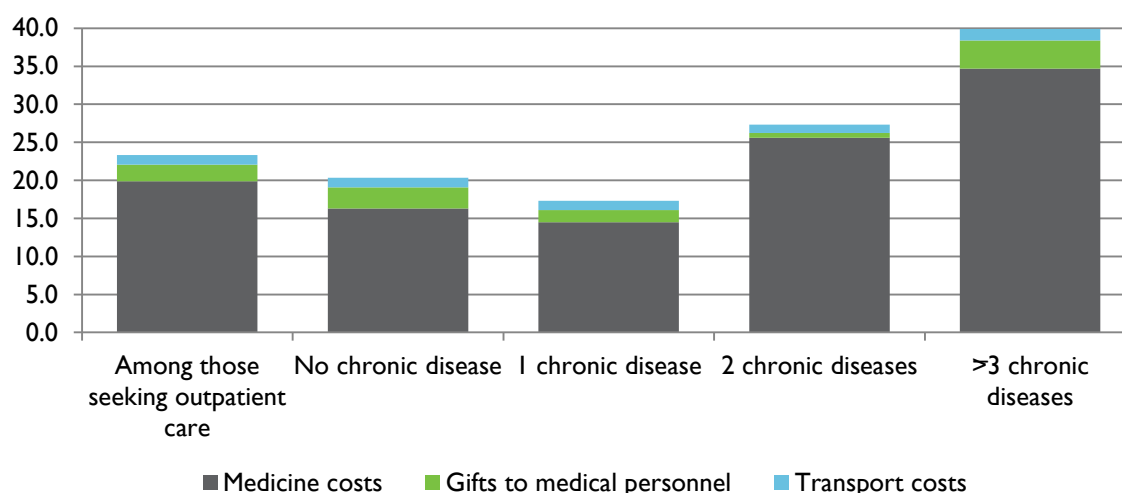
\*\*\* Conversion into PPP-adjusted international dollars is done to draw cross-country comparisons.

Ukraine has relatively high overall national spending on health, with relatively high out-of-pocket expenditure. It also shows that Ukraine's health financing system has a very low dependence on donor assistance – in 2007 only 0.3 percent of the total health expenditure compared with 2.5 percent on average for the ECA countries and 11 percent for the lower middle income ones.



Figure 3.2.2 illustrates the average out-of-pocket costs to a patient in Ukraine, depending on the number of diseases being treated, and shows that the vast majority of the payment is made for medicines.

**FIGURE 3.2.2. AVERAGE COSTS OF AN OUTPATIENT MEDICAL VISIT (IN USD)**



Source: Adapted from World Bank data, 2009

A trend analysis of health financing in Ukraine is made in Table 3.2.2, based mostly on reports from government sources. It reveals that, despite some increase in government health budgets, government expenditure on health decreased in 2008 and 2009 in real terms. The nominal incremental increase in total health expenditure in Ukraine was 37 percent in 2008 and 13 percent in 2009, whereas the annual increase in government health expenditure for these two years was much less – 28 percent and 8 percent, respectively. This may have contributed to an increase in private spending in the form of out-of-pocket spending by individuals and households. The latest economic downturn challenged the government to maintain health funding. Ukraine witnessed a 15 percent decrease in GDP growth in 2009, while the annual rate of inflation was about 16 percent. Thus, while suffering from the economic downturn, the population has been faced with increasing health costs and risks of catastrophic health expenses in the face of reduced government spending.

**TABLE 3.2.2. TRENDS IN SELECT HEALTH EXPENDITURE AND ECONOMIC INDICATORS, 2004–2009**

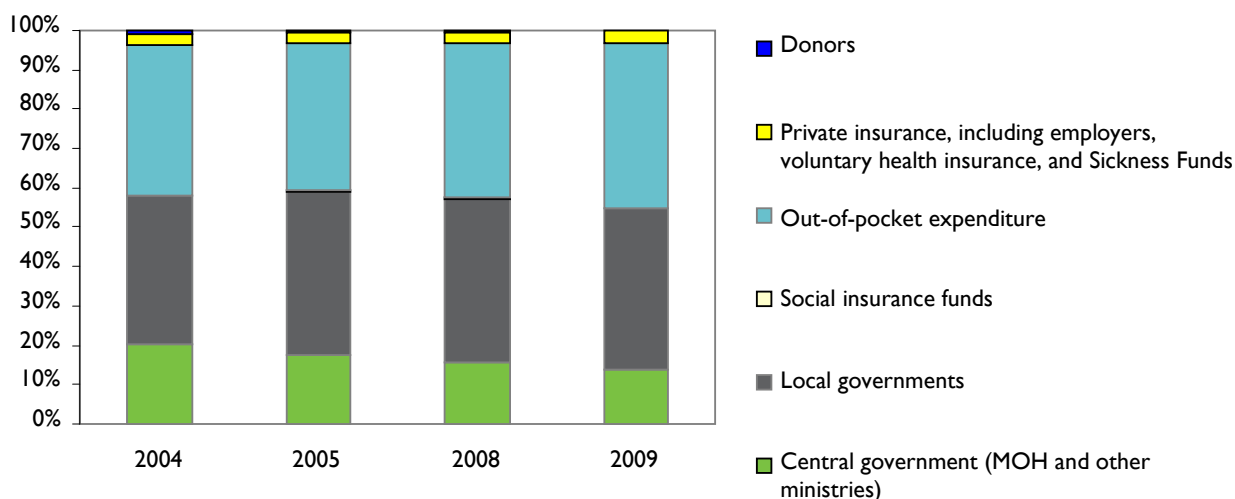
	2004	2005	2008	2009
Annual inflation rate (%)	9	13.6	25.2	15.9
Annual GDP growth (%)	12.1	2.7	2.1	-15.1
Total expenditure on health in mln US\$	US\$4,317	US\$5,545	US\$11,975	US\$9,166
Annual increase in THE (%)	23.3	24.6	37.3	13.2
Share of public (government) expenditure on health in GDP (%)	N/A	N/A	3.3	2.9
Share of public (government) expenditure on health as % of total government budget expenditure	13.1	11.9	11.7	12.7
Annual increase in public (government) expenditure on health (%)	23.1	26.0	27.7	8.3

Source: Adapted from State Statistical Committee, 2011; MOH-Ukraine (a), 2009; World Bank (c), 2010

### 3.2.4 HEALTH FINANCING SOURCES AND AMOUNTS

The health financing system in Ukraine includes a variety of revenue-generation sources, both public and private. These include government allocations to health in the central and local government budgets, social health insurance funds, contributions from the donors, out-of-pocket payments by individuals and households, for-profit private insurance funds comprising employer contributions as well as voluntary schemes purchased by individuals, and nonprofit health insurance scheme (Sickness Fund). The sources and amounts of health financing, as adapted from the most recent update of the Ukrainian National Health Accounts (NHA) are summarized in Figure 3.2.3.

**FIGURE 3.2.3. TRENDS IN THE SOURCES OF HEALTH FINANCING, 2004–2009**



Source: Adapted from NHA of Ukraine in 2009 (State Statistical Committee, 2011).

**Government:** Government funding for health care has declined slightly in recent years to 55 percent of total funding. This is seen particularly in the national health budgets (MOH and other ministries), which have declined from 20 percent in 2004 to 14 percent in 2009. In contrast, the role of local government in public health financing has remained steady at a level of about 40 percent of the total health expenditure in the country. Social insurance funds managed by the government are fairly small, designed to provide protection against occupational accident and disease risks, and account for only around 0.2 percent of total health expenditure.

**Out-of-pocket spending:** Private spending in the form of out-of-pocket spending by households is the second largest source of health financing. As the share of government funding in the country's overall health expenditure is continuously decreases, out-of-pocket spending rises proportionately. In 2009, the out-of-pocket contribution increased to a high of 42 percent of total health expenditure.

#### BOX 3.2.1. HIGH OUT-OF-POCKET PAYMENTS INHIBIT ACCESS TO HEALTH CARE IN UKRAINE

According to a public opinion poll conducted in 2006 by the Kyiv International Institute of Sociology, 12 percent of respondents reported not seeking non-urgent professional health care because of high costs. A survey conducted by the State Statistics Committee in 2006 reported that 14 percent of respondents who required medical care could not afford to access the necessary services on financial grounds. More than 80 percent of respondents rated the out-of-pocket costs for drugs, outpatient care, and medical services as exorbitant. Households in the lowest income groups were twice as likely to forgo needed health care, drugs and medical supplies than those in the richest decile (Lekhan, Rudi, Richardson, 2010). Nearly one in five Ukrainians face catastrophic health expenditures because of high out-of-pocket spending (World Bank (a), 2008).

Officially, the citizens of Ukraine enjoy a comprehensive guaranteed package of health services free of charge as a constitutional right, but severe difficulties with government financing of health care has resulted in mobilizing additional resources through charging user fees. Failure to reach a consensus in defining a more limited benefit package, one that reflects the reality of the government budget, has left it to the individual health facilities to determine which services are to be covered by the budget and which should be subject to user charges. This, in turn, has resulted in a lack of transparency in the system that has contributed to an increase in informal payments. Indeed, according to the NHA, the volume of informal, under-the-table payments in 2005 was 10 percent of the total health expenditures and 22 percent of total household expenditures. Out-of-pocket payments are mainly for the purchase of drugs and medical supplies – around a fifth of the total health care expenditure and two-thirds of the total volume of out-of-pocket payments (Lekhan, Rudyi, Richardson, 2010; Gotsadze et al., 2006). See Box 3.2.1. for evidence on how high out-of-pockets adversely impact access to health care in Ukraine.

**Private health insurance and Sickness Funds:** The combined share of private health insurance schemes supported by enterprises and private employers, voluntary health insurance schemes, and Sickness Funds is marginal in health care financing in Ukraine. These together account for around 3 percent of total health resources.

**Donors:** Historically, the share of donor funding in the overall health financing in Ukraine has been quite low and is decreasing (0.7 percent in 2004, 0.2 percent in 2009). The limited donor funds are targeted mostly toward specific programs of public health significance, such as HIV/AIDS, TB, and FP/RH.

### 3.2.5 POOLING AND ALLOCATION OF HEALTH RESOURCES

The main type of health financing risk pooling is done within the government budgeting systems, and these public resource pools are fragmented and somewhat disconnected. The pooling function of health care financing system at the central level is weak and does not allow effective and equitable allocation of state resources. Central budget financing, which is less than a fifth of total health expenditure, is spread among a dozen budget administrators. Only a little over half of these funds are administered directly by the MOH. Regional/municipal financing, which accounts for another two-fifths of total health expenditure, is also spread among rayon/municipal and regional budgets. If Ukraine decides to introduce a purchaser-provider split and moves to output-based payments such as case-based payment or global budgets, the fragmented, disconnected funding pools are likely to pose serious obstacles.

**Private health insurance:** In 2008, it was estimated that 8 percent of the Ukrainian workforce and 25 percent of the Kyiv workforce had some kind of voluntary medical insurance. Of those with insurance, no less than 90 percent were insured by their employers. Prior to the economic crisis, the market was growing 20–25 percent per year, but it has likely been negatively impacted by the crisis. There are significant policy barriers to the growth of the private insurance market, as described above in Section 3.1 Governance and Leadership. Systemic barriers to the market's growth include:

- Limited management capacity among insurance companies; and
- Public sector doctors' reluctance to accept only insurance payments for services, demanding also informal payments ([www.med-insurance.com.ua](http://www.med-insurance.com.ua) and stakeholder interviews, 2011).

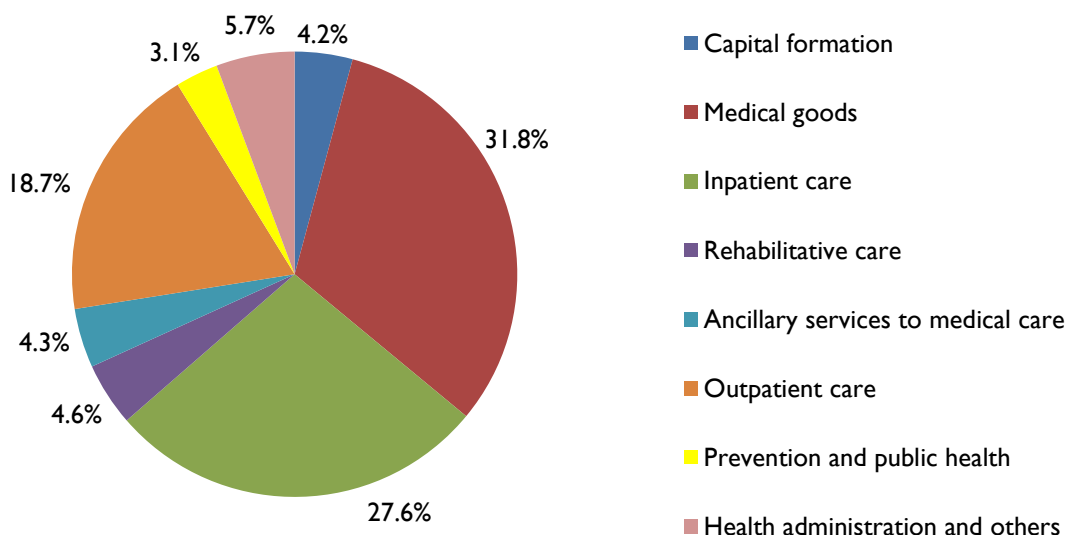
**Sickness funds:** As an alternative means to mobilize additional resources for the health system, a number of NGOs – Sickness Funds and credit unions – have been established in Ukraine since 1999. Sickness Funds function as nonprofit voluntary health insurance. A fund may comprise individuals as well as working collectives, enterprises, agencies, and institutions paying premiums for their members. Individual premiums account for 90–95 percent of funds, while enterprises and institutions make up the rest. The number of Sickness Fund members increased by 25 times and presently represent about 2 percent of the country's population. A major function of the funds is to provide pharmaceuticals to their members as most drugs available at government facilities. A number of funds also make contributions to

capacity-development activities, including procuring modern medical equipment for health facilities, supporting training and retraining of medical personnel, and implementing advocacy events on healthy lifestyle. The Sickness Funds, however, still contribute a very low percentage of Ukraine’s total health expenditure – around 0.1 percent (Lekhan, Rudyi, Richardson 2010).

### Allocation in the Health Sector

Allocations of total health resources generated from government as well as private and donor sources, are shown in Figure 3.2.4. The current accounting procedures in Ukraine make it difficult to clearly distinguish costs incurred on outpatient and inpatient care. For instance, expenditures made on drugs and medical goods or ancillary medical services (laboratory and diagnostic tests) do not specify which portion is spent in outpatient care and which in hospitals. Further complicating allocation tracking (and thus management), the MOH does not maintain comprehensive cost accounting of the total public health budget. MOH information only includes the allocations directly made by the MOH, whereas the MOF maintains accounting of the health spending made by the local governments and by other ministries.

**FIGURE 3.2.4. ALLOCATION OF TOTAL HEALTH EXPENDITURE BY MAIN HEALTH FUNCTIONS, 2009**



Source: Adapted from NHA of Ukraine in 2009 (State Statistical Committee, 2011).

Review of 2004 and 2009 NHA data reveals that these health expenditure percentage allocations have not changed much over the years. The vast portion of health funds (95 percent) continues to go to recurrent costs, while 4 percent is spent on capital investments in infrastructure and equipment. The bulk of expenditure is made on drugs and medical supplies (32 percent), a considerable share of which is borne through out-of-pocket payments by patients. Indeed, 82 percent of all out-of-pocket private spending is spent on medicines (Gotsadze et al., 2006).

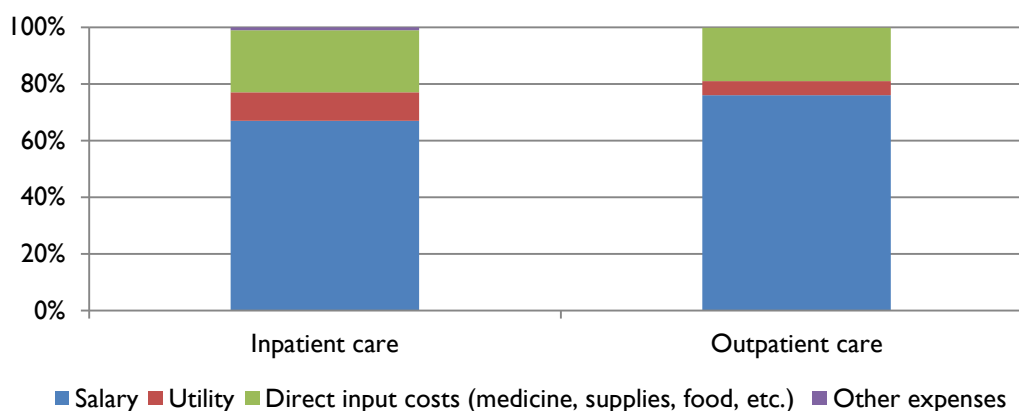
Spending on prevention and public health activities is as low as 3 percent of total health expenditure. This is strikingly low, especially considering the public health challenges Ukraine is facing, such as HIV/AIDS and TB epidemics, and high mortality from non-communicable diseases and preventable causes. See Section 3.6. Service Delivery for more details.

A considerable percentage (5 percent in 2009) continues to be spent on rehabilitative care provided primarily in sanatoria – a remnant of the Soviet era, where patients spend their vacations and receive

restorative treatments. Ancillary services attract almost 4 percent of total health care expenditures (Lekhan, Rudi, Richardson, 2010).

Ukraine has an extensive health sector infrastructure. However, most funds that the government can afford to commit to health facilities are consumed by personnel and utility payments (nearly 80 percent), with little remaining for drugs, clinical supplies, and maintenance or purchase of equipment and infrastructure. See Figure 3.2.5.

**FIGURE 3.2.5. SHARE OF EXPENDITURE ITEMS IN GOVERNMENT RECURRENT EXPENSES, BY PROVIDERS**



Source: Gotsadze et al., 2006.

### 3.2.6 HEALTH SERVICE PURCHASING AND PROVIDER PAYMENT APPROACHES

Purchasing of health services in Ukraine is predominantly government buying health services from facilities and institutions that it owns and operates. The health purchasing process is, in essence, an automatic payment for medical services rendered. There is no purchaser-provider split or strategic purchasing of more appropriate or cost-effective health services for the beneficiaries (Lekhan, Rudi, and Richardson, 2010).

#### **Budgeting and financing of health facilities**

The budgeting and payment system in Ukraine is one of the weakest aspects of the health system and is at the crux of a number of cross-cutting issues such as service delivery management, availability of services, affordability of care, and governance and management. The provider payment approach is based on a list of permitted line items, which in turn is based on norms set by the MOH or MOF. These norms mostly depend on the input capacity of a health facility (number of beds, number of doctors) and are often disconnected from the health needs of the population. See Box 3.2.2. The level of resource allocations to government-financed health facilities is based on historical budgeting, with some adjustment for inflation or other budgetary issues. The MOF and its affiliates in regions and districts inform the MOH and local health authorities of the maximum allocation for a given budget year, and this determines the maximum permissible expenditure for each health facility. The individual health facilities then produce cost estimates for their budgets accordingly – with the primary and mandatory goal of guaranteeing salaries and only then distributing the remaining resources among

**Box 3.2.2. The payment system is the root of many ills**

The provider payment approach encourages health facilities to maintain excess capacity and serves as a perverse incentive for improved and efficient use of resources. The approach has no connection with performance parameters such as volume or quality of health services produced, population health needs met, or health outcomes generated.

line items like pharmaceuticals, food, and repair and maintenance. For inpatient facilities, the number of positions budgeted is based on the number of beds. Because capital expenditure (on equipment or infrastructure upgrade and renovation) is not considered a priority, these items are rarely funded, only if some money is left after meeting the primary requirements and liquidating any past debts.

Facilities must spend funds exactly as allocated. They do not have the flexibility to move money from one line item to another, even if urgent reallocation is needed to respond to a health priority. Any change in the facility's income and expense estimates must be approved first by the chief administrators of budgetary resources and appropriate fiscal authorities. If there are any unspent funds at the end of the year, the fiscal authorities will reduce the facility's budgetary allocations for the next year by that amount.

### 3.2.7 HEALTH FINANCING: HIV/AIDS, TB, AND FP/RH PROGRAMS

HIV/AIDS, TB, and reproductive health activities are considered special health care programs in Ukraine. These programs are structured vertically and funded jointly by the MOH and respective local government health budgets with some benefit from Global Fund inputs. The MOH funds mainly drug, clinical supplies (lab test kits, reagents), and equipment for the special programs; all other input costs are borne by local government health budgets. Due to these separate funding streams, it becomes difficult to obtain accurate, aggregated numbers of the total government spending on these specialized programs. The MOH finance and accounting department keeps funding information only for the money it disburses, not the total funding numbers for the special programs. This is a weakness of the system as incomplete information impedes the ability to implement evidence-based management.

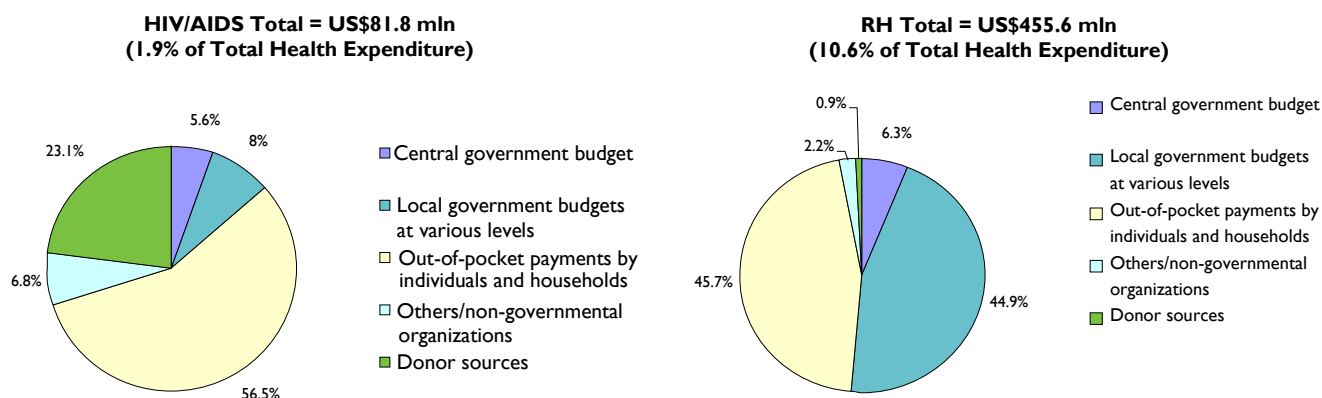
The 2004 NHA reports in Ukraine included separate subaccount analyses for the HIV/AIDS and reproductive health programs. The findings provide a comprehensive delineation of the financing sources and amounts in these two programs. No subaccount analysis was done for the TB program. Also, there has been no separate accounting at the MOH or MOF for the family planning program, either in their regular reports or in the reproductive health subaccount analysis because:

1. Family planning is not included in the MOH accounts as a separate health function under the national reproductive health program;
2. Family planning activities are spread across multiple ministries in addition to the MOH; and
3. A large amount of family planning commodities is received as grants from donors (USAID largely), and so are not reflected in program expenditure statements.

As seen from Figure 3.2.6, overall expenditure on the HIV/AIDS program amounted to US\$82 million in 2004, which was around 2 percent of the Ukraine's total health expenditure. Unfortunately, more recent NHA figures are not available. Only about 14 percent of this spending came from government sources – almost 6 percent from central government budgets (MOH and others) and 8 percent from local government contributions. The donor share of funding was much larger – 23 percent. Another 7 percent was contributed by private sources such as NGOs and charity funds. A staggering 57 percent of the country's total expenditure on HIV/AIDS had to be borne by individuals and households through out-of-pocket spending.

More than half of all of the above financial resources were consumed on medicines and related medical supplies (53 percent), some 30 percent on service provision, and about 16 percent on preventive interventions.

**FIGURE 3.2.6. SOURCES AND SHARES OF FINANCING FOR THE HIV/AIDS AND REPRODUCTIVE HEALTH PROGRAMS AS OF 2004**



Source: Partners for Health Reformplus, 2006

In the reproductive health program, more than a half of the country's overall expenditure came from government sources – 46 percent from the local government budgets and 6 percent from the central budget. Donor and NGO contributions together accounted for around 3 percent, and the remaining 46 percent came from out-of-pocket spending by patients and households. Approximately two-thirds of these expenditures went to service provisions and the rest to medicines and related commodities.

### Challenges ahead

Ukraine is experiencing the most severe HIV/AIDS epidemic in Europe and the CIS. Despite considerable reductions in HIV incidence globally, the number of newly reported HIV cases in Ukraine has continued to increase annually. Over the past years, government budgetary expenditure on the HIV/AIDS program has considerably increased to help respond to the needs of people with the disease. In contrast to the approximately US\$11 million spent in 2004, central and local government budgets together allocated around US\$31 million each to the national HIV/AIDS program in 2009 and 2010. Also, donor funding for the HIV/AIDS program has significantly increased in the past years. The combined sum of external assistance was US\$40 million and US\$45 million in 2009 and 2010, respectively. The Global Fund and USAID are the major donors to HIV/AIDS funding in Ukraine: the Global Fund contributed US\$30 million in each of the past two years (2009 and 2010) and USAID contributed US\$7 million in 2009 and US\$12 million in 2010. However, even with these substantial increases, the total funding needs for the national HIV/AIDS program remain largely unmet. Table 3.2.3 summarizes the current and projected funding gaps for 2009–2016, ascertained as part of Ukraine's Global Fund Round 10 grant application for HIV/AIDS. The funding needs are based on universal coverage requirements for HIV/AIDS services, while the gaps were ascertained from funding estimates in the National HIV/AIDS Operational Plan and National AIDS Spending Assessment of UNAIDS.

**TABLE 3.2.3. NATIONAL HIV PROGRAM FUNDING GAPS 2009–2016 (US\$ MILLION)**

	2009	2010	2011	2012	2013	2014	2015	2016
<b>Total funding needs</b>	<b>155.93</b> (100%)	<b>193.78</b> (100%)	<b>208.10</b> (100%)	<b>237.19</b> (100%)	<b>291.01</b> (100%)	<b>343.39</b> (100%)	<b>405.20</b> (100%)	<b>478.14</b> (100%)
<b>Current/planned funding availability</b>	<b>85.89</b> (55%)	<b>78.56</b> (41%)	<b>92.51</b> (44%)	<b>95.97</b> (40%)	<b>84.92</b> (29%)	<b>80.62</b> (23%)	<b>95.49</b> (24%)	<b>112.24</b> (24%)
<b>Domestic sources</b>	<b>46.17</b>	<b>33.31</b>	<b>38.13</b>	<b>47.99</b>	<b>63.91</b>	<b>76.79</b>	<b>91.66</b>	<b>109.49</b>
- National and local government budgets	(30%)	(17%)	(18%)	(20%)	(22%)	(22%)	(23%)	(23%)
- Loan (World Bank)	20%	16%	17%	19%	21.3%	21.5%	22.5%	22.5%
- Private sector contributions	8.5%	0	0	0	0	0	0	0
(Anti-AIDS Foundation)	1.5%	1%	1%	1%	0.7%	0.5%	0.5%	0.5%
<b>External sources</b>	<b>39.72</b>	<b>45.25</b>	<b>54.38</b>	<b>47.98</b>	<b>21.01</b>	<b>3.83</b>	<b>3.83</b>	<b>2.75</b>
- Global Fund(Round 6 Grant)	(25%)	(23%)	(26%)	(20%)	(7%)	(1%)	(1%)	(1%)
- USAID	18.9%	15.3%	16.2%	11.8%	0.4%	0.3%	0.3%	0
- UN agencies	4.3%	6.2%	8.3%	7.2%	5.8%	—	—	—
- Others (Clinton Initiative, Elton Foundation, Soros Foundation)	1.0%	0.9%	0.9%	0.8%	0.6%	0.5%	0.5%	0.8%
	0.8%	0.6%	0.6%	0.2%	0.2%	0.2%	0.2%	0.2%
<b>Funding gap</b>	<b>70.04</b> (45%)	<b>115.22</b> (59%)	<b>115.59</b> (56%)	<b>141.22</b> (60%)	<b>206.09</b> (71%)	<b>262.77</b> (77%)	<b>309.71</b> (76%)	<b>365.90</b> (76%)
Prospective Global Fund Round 10 Grant funding				34.90 (15%)	60.95 (21%)	63.45 (19%)	69.91 (17%)	76.33 (16%)
<b>Estimated Funding gap</b>	<b>70.04</b> (45%)	<b>115.22</b> (59%)	<b>115.59</b> (56%)	<b>106.32</b> (45%)	<b>145.14</b> (50%)	<b>199.32</b> (58%)	<b>239.80</b> (59%)	<b>289.57</b> (60%)

Source: Adapted from Global Fund Round 10 Grant Proposal Form, 2010.

Note: 1. Numbers in parenthesis indicate the respective percentage values; 2. '—' indicates unavailability of specific numbers at this time; 3. Percentage values were rounded in some cases.

As seen in Table 3.2.3, the new Global Fund grant of US\$305 million for the period of 2012–2016 notwithstanding, there will still be a huge funding gap, amounting to an estimated 45–60 percent of the total funding needs for the national HIV/AIDS program.

Similar sustainability threats prevail for the national TB program as well. Highlights of the national TB funding analysis in the Global Fund Round 9 grant application are presented in Table 3.2.4. Domestic contributions made by the government and the private foundation “Development for Ukraine” cover less than a third of the country’s total funding needs for TB services. The main two sources of donor assistance are again Global Fund and USAID. In 2010, the Global Fund TB grant amounted to 10 percent of the total funding needs and that of USAID to 3 percent. Despite the new Global Fund grant of US\$104 million for 2010–2014, the national TB program will remain underfunded by 50 percent of the total funding requirements.



**TABLE 3.2.4. NATIONAL TB PROGRAM FUNDING GAPS 2009–2014 (US\$ MILLION)**

	2009	2010	2011	2012	2013	2014
<b>Average funding needs</b>	<b>113.97</b> (100%)	<b>113.97</b> (100%)	<b>113.97</b> (100%)	<b>113.97</b> (100%)	<b>113.97</b> (100%)	<b>113.97</b> (100%)
<b>Current/planned funding availability</b>	<b>25.24</b> (22%)	<b>47.27</b> (41%)	<b>56.22</b> (49%)	<b>51.76</b> (45%)	<b>55.42</b> (48%)	<b>55.94</b> (49%)
<b>Domestic sources</b>	<b>21.84</b>	<b>32.38</b>	<b>33.18</b>	<b>32.08</b>	<b>31.08</b>	<b>31.08</b>
• National and local government budgets	(19%) 18%	(28%) 27%	(29%) 27%	(28%) 27%	(27%) 27%	(27%) 27%
• Private sector contributions (Development Fund of Ukraine)	1% <b>3.40</b>	1% <b>14.89</b>	2% <b>23.04</b>	1% <b>19.68</b>	— <b>24.34</b>	— <b>24.86</b>
<b>External source</b>	(3%)	(13%)	(20%)	(17%)	(21%)	(22%)
• Global Fund (Round 9 Grant)	-	10%	20%	17%	21%	22%
• USAID	3%	3%	—	—	—	—
<b>Estimated funding gap</b>	<b>88.73</b> (78%)	<b>66.70</b> (59%)	<b>57.75</b> (51%)	<b>62.21</b> (55%)	<b>58.55</b> (52%)	<b>58.03</b> (51%)

Source: Adapted Global Fund Round 9 Grant Proposal Form, 2009.

Note: 1. Numbers in parenthesis indicate the respective percentage values; 2. '—' indicates unavailability of the specific numbers at this time; 3. Percentage values were rounded in some cases.

It is likely that patients will have to bear the substantial brunt of funding gaps in the form of out-of-pocket payments. This, in turn, may result in a barrier to access for these critical services.

The bulk of government funds in the HIV/AIDS and TB programs are committed to treatment-related activities. The financial outlay in the National AIDS Program for 2009–2013 suggests that 55 percent of funds be allocated to treatment, 27 percent to prevention activities, 10 percent to care and support, and 8 percent to program organization and administration. In fact, 60 percent of all public funds for 2009–2013 have actually been earmarked for ART and HIV laboratory expenses.

In the Round 10 Global Fund grant application, a reduction in the unit cost for ART from US\$684 to US\$562 has been proposed. Sustained economy is possible to attain through more efficient price negotiation with pharmaceutical companies and procurement of generic ARVs. For instance, comparison of government and Global Fund procurement prices for ARVs indicates considerable prospects for savings. Except for Tenofovir, the unit procurement prices for the government purchases were higher than the corresponding Global Fund prices for all ARVs. Table 3.2.5 demonstrates how, through more efficient procurement arrangements, it would be possible to attain a saving of 15 percent or US\$2 million in the GOU ARV purchase in 2010 alone.

**TABLE 3.2.5. COMPARATIVE ANALYSIS OF ARV PROCUREMENT PRICES FOR THE GOU, 2010**

Select ARV drugs	MOH Unit Procurement Price	Global Fund Unit Procurement Price	MOH Procured Quantity	Total Amount Paid by MOH	Possible Saving (US\$)
Zidovudine (AZT) + Lamivudine (3TC)	\$13.82	\$9.15	161,099	2,226,388	752,332
Efavirenz (EFV)	\$15.27	\$8.07	5,113	78,075	36,814
Efavirenz (EFV)	\$16.70	\$11.67	99,774	1,666,225	501,863
Lopinavir (LPV) 200mg + Ritonavir (Rtv) 50mg	\$91.14	\$83.87	112,516	10,254,708	817,991
Tenofovir (TDF)	\$15.95	\$21.12	14,644	233,572	-
Total				14,458,968	2,109,000 (14.6%)

Source: Adapted from International HIV/AIDS Alliance in Ukraine and HSA team analysis.

Financial sustainability and improved resource use within the entire health system and the HIV/AIDS or TB systems are related. Without a rationalization of the health system and a corresponding freeing of resources, the specialized programs of public health significance would continue to rely on donor funding or remain underfinanced – perpetuating sustainability threats. On the other hand, efficiency in the HIV/AIDS, TB, and other specialized programs depends on effective integration of these services in the general health care system. Parallel service delivery systems for the specialized programs create a considerable cost burden on the country’s health financing status as well as coordination and management problems.

Another significant concern for Ukraine’s public health system is the serious lack of sufficient government funding for targeted preventive interventions among MARPs. The Global Fund Round 10 grant proposal indicates that, even if government funding for HIV/AIDS preventive activities is made available as pledged in the National AIDS Program, it would hardly be enough to cover a fifth of MARPs. Also, the government service delivery network does not have active outreach mechanisms to reach out to the targeted groups. The active outreach work with targeted preventive services among the MARPs is mostly carried out by NGOs, with financial assistance from donors. There is no formal contracting mechanism to sustain these critical activities implemented by the NGOs with government budget funding support.

### 3.2.8 SWOT ANALYSIS

Table 3.2.6 summarizes the salient findings of the health financing assessment in terms of the key strengths, opportunities, weaknesses, and threats and their possible impact on the overall performance criteria of the health care system in Ukraine: efficiency, equity, access and coverage, quality and safety of care, and sustainability.

**TABLE 3.2.6. SWOT ANALYSIS FOR HEALTH FINANCING**

<b>Equity, Access, Efficiency, Quality, and Sustainability</b>		
Strengths and Opportunities	General Health Services, HIV/AIDS and TB	<ul style="list-style-type: none"> <li>• A relatively high percentage of GDP (7 percent) is spent on health care</li> <li>• Ukraine’s health sector is minimally dependent on donor funding</li> <li>• The government is pursuing health financing reforms that could improve efficiency and quality of care</li> <li>• Political and economic imperatives exist to pursue health reform, including an IMF conditional loan</li> <li>• Donor funding of HIV/AIDS, TB is significant in the near term</li> </ul>
Weaknesses and Threats	General Health Services	<ul style="list-style-type: none"> <li>• The health system is unsustainable in its current form and the state cannot afford to deliver the guaranteed health benefit package</li> <li>• There is a lack of adequate government spending on health care</li> <li>• Expenditure on health is reliant on private sources, predominantly out-of-pocket payments</li> <li>• Current economic conditions have impacted government revenues, threatening decreases in spending for health</li> <li>• There is a notable absence of risk-pooling schemes</li> <li>• Health facility budgetary norms and allocations do not take into account volume and quality of services rendered or health service needs of the population</li> <li>• Budgetary norms and provider payment approaches foster a large portion of government funds be spent on wages, utility costs, and other inputs</li> <li>• Facility managers are not able to manage their finances to reinvest savings and reallocate funds for greater efficiency, responsiveness to health needs</li> <li>• A disproportionate share of expenditures are for inpatient care, with only 15% expended for outpatient care</li> <li>• Local government administrations have limited autonomy regarding allocation strategies for health services</li> <li>• The system of inter-budget transfers to equalize regions and to provide subsidies for social protection programs is not linked to the health needs of a region’s population</li> <li>• There is a lack of comprehensive and reliable information on health financing, particularly to assess the contributions of various financing sources (public, private, households, donors) and ascertain the expenditure amounts on various health activities (inpatient care, outpatient care, HIV/AIDS, TB).</li> </ul>
	HIV/AIDS and TB	<ul style="list-style-type: none"> <li>• Strict separation of health budgets for selected health issues (TB, HIV/AIDS, etc.) leads to parallel medical providers, and limits optimization/rationalization</li> <li>• The five-year National AIDS Program budget allocations for prevention activities among MARPs and the general populations are inadequate.</li> <li>• The national HIV/AIDS and TB programs rely considerably on donor support (around 50 and 15 percent, respectively); however these programs remain significantly underfinanced</li> </ul>

### 3.3 SERVICE DELIVERY

According to WHO, service delivery is concerned with how inputs and services are organized and managed to ensure access, quality, safety, and continuity of care across health conditions, and across different locations and time (WHO (a), 2007). While Ukraine's constitution guarantees a basic package of health care to its population free of charge, it is currently unable to provide this. This is in part because Ukraine is experiencing many of the same health challenges as the rest of the E&E region: lack of political commitment, weak capacity to improve provider skills, and a culture of informal payments. Ukraine is further challenged by the structure of the health system, essentially unreformed since Soviet times, including facility and supply allocation, budgeting and financing norms, inadequate worker incentives, and an incomplete transition to a more PHC service model and adherence to evidence-based protocols.

A number of recent assessments have described the Ukraine health service delivery system as weak, overly vertical, inefficient, inequitable, unresponsive to health care needs and slow in introducing health reform that was promised post-independence (World Bank (b), 2010; Lekhan, Rudi, and Richardson, 2010; Lekhan and Rudi, 2007; Menon, 2010). Ukrainian citizens have also been critical of the health care system (Suhrcke et al. 2008). The high mortality rates found in the adult male population as well as high rates of HIV and TB highlight the unresponsiveness of the health care system to the PHC needs of the population.

#### 3.3.1 ORGANIZATION OF SERVICE DELIVERY

In Ukraine, the health care system is coordinated and managed by the MOH at the central level, with a hierarchy of facilities based on political administrative-levels (national/republic, oblast, and rayon levels). Policies and decisions on the administration and rationing of health care in Ukraine are based on national health care norms and standards, system capacity, and demographics, rather than local health care needs. At the central level, frequent changes in the Minister of Health, and the lack of a Permanent Secretary for Health, have further impeded continuity of or improvement in health services and policies. At the local level, the health care system is coordinated and managed (and largely financed) by the 24 oblast health authorities, the Government of the Autonomous Republic of Crimea, and the city health authorities of Kiev and Sebastopol (Menon, 2010).

As seen in Table 3.3.1, several other ministries (Finance, Defense, Internal Affairs, Transport, and Labor and Social Policy) also provide health care to their workers. Other providers include the Department for State Penal Jurisdiction, Funds for Social Insurance and Protection, and the Red Cross Society of Ukraine (Lekhan and Rudi, 2007). Employees and retirees of these ministries and departments seek some health care from their facilities, and use mainstream government facilities for other health care needs on an ad hoc, unsystematized basis which results in underutilization and overutilization of some facilities and services – but mainly in redundancies in the system.

**TABLE 3.3.1. OTHER HEALTH CARE PARTICIPANTS IN UKRAINE**

Other Participants	Responsibilities
Ministry of Finance Ministry of Defense Ministry of Internal Affairs Security Service Ministry of Transport	Manage their own health care facilities for employees and family members
State Penal Jurisdiction department	Provides health and preventive services in the penitentiary system
Ministry of Labor and Social Policy	Provides specialized health care for elderly and disabled persons in nursing homes under their jurisdiction; exercising government control over the compulsory state social insurance funds
Fund for Social Insurance for Temporary Inability to Work	Provides financial coverage for temporary disability, including taking care of a sick child, pregnancy and childbirth. Payment for trips to sanatoriums and health resorts for insured persons and their family members.
Fund for Social Insurance for Industrial Accidents and Occupational Diseases	Covers health care costs for insured persons in case of an accident
Fund for the Social Protection of the Disabled	Provides the disabled with medicine, artificial limbs, auxiliary devices, and health rehabilitation services
Red Cross Society of Ukraine	Runs home-nursing service and provide health care services for older citizens and disabled people.

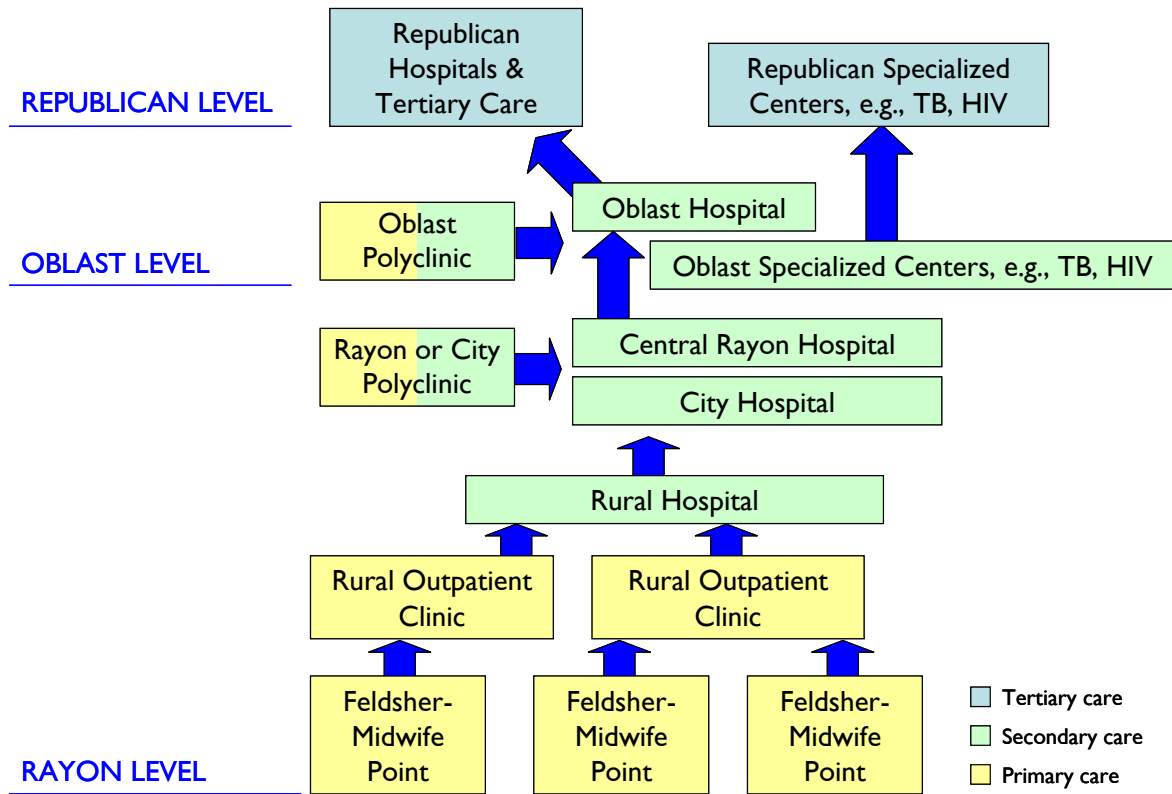
Source: Lekhan and Rudyj, 2007.

Decentralization in the health sector has taken place to some extent and followed from the general Ukraine policy of administrative decentralization (Lekhan, Rudyj, and Richardson, 2010). Yet, the health system is centered on episodic disease management and curative care, and provides less emphasis on preventive, primary, and integrated health care services. This is reflected in the health system's current structure, which includes separate vertical systems of specialized health centers, procurement structures, and methods of care for special health problems such as TB, HIV/AIDS, women's health, oncology, and family planning outside of the overall health system.

### 3.3.1.1 LEVELS OF SERVICE DELIVERY AND REFERRAL SYSTEM

Figure 3.3.1. depicts the service delivery structure managed at rayon, oblast, and national levels. Arrows represent intended referral patterns; however, there is general consensus that the referral system is not working as intended, as evidenced by estimates that the majority of patients (60 percent) bypass PHC to seek care directly from specialists (Menon et al., 2009).

**FIGURE 3.3.I. HEALTH SERVICE DELIVERY LEVELS, ACCESS POINTS, AND REFERRAL SYSTEM**



Source: Information gained during the HSA.

While the assessment team found that the definitions of primary, secondary, and tertiary care services are not universally accepted or known in Ukraine, there is some common understanding of the types of institutions that should be providing services at those levels. There is a sense that unclear definition of the levels of service contributes to the lack of an effective referral system, and lack of rational management and financing of the health care system. One of the first steps of health reform, according to the GOU's latest pronouncements, is to define these levels of care. A recent publication produced in 2010 by the Center for Strategic Studies offers recommendations for the MOH for defining the levels of care but the recommendations have not been implemented to date (Center for Strategic Studies 2010). Listed below are summaries of the providers of care at each level of health service delivery.

**Primary care:** Found at the community, rayon, and municipal levels, PHC provides general practitioner/family medicine services at stand-alone points, outpatient clinics, polyclinics, polyclinics attached to district and rural hospitals, and *medsanchasts* (company polyclinics). PHC is organized via *uchastoks* (catchment areas) that evenly split populations in the rayon. PHC facilities are administered and funded by rayon-level government and may be staffed by a physician or in rural areas by feldshers and/or midwives who can provide first aid, limited curative and prescriptive services, and ante- and postnatal care.

The compartmentalization of a patient's health has led to the health providers being unaware of a patient's overall health situation, and thereby causing many Ukrainians to visit inappropriate health providers for various health issues. The PHC components of the health system remain underdeveloped – the MOH only established a subdivision for PHC in 2007 (Menon, 2010) and progress in increasing the cadre of family medicine doctors, which are critical for the success of PHC, has been slow (see Section

3.4 Human Resources). A stronger PHC system will be essential to adequately address the country's critical health challenges, including chronic diseases, HIV/AIDS, and TB, and reduce the morbidity and mortality associated with them. It will be essential that the burgeoning health reform efforts currently under discussion continue to strengthen PHC (see Section 3.1 Governance and Leadership).

**Secondary care:** This includes specialists who are based out of polyclinics located at rayon and larger town/urban area hospitals and specialist dispensaries (TB, HIV/AIDS, etc.). Secondary care features different types of specialists such as surgeons, orthopedists, ophthalmologists, urologists, and gastroenterologists grouped in polyclinics that intend to serve around 25,000 people (Lekhan, Rudyi, and Nolte, 2004). The management and administration of secondary care is provided by rayon and municipal governments.

**Tertiary care:** Provided through oblast, city (Kiev and Sebastopol), and national-level hospitals and large-scale specialist dispensaries, tertiary care features a full range of inpatient and outpatient specialists from cardiologists to surgeons to allergists to psychiatrists.

Intended referral patterns have eroded in Ukraine due to a weak PHC system, weak enforcement of the referral chain, and lack of administrative barriers to self-refer. The current referral system in Ukraine affects patients' ability to appropriately access care and also affects the efficiency of the overall health care system. Ukrainians have the right to choose any PHC provider; however, because PHC practitioners do not act as "gate-keepers," many Ukrainians (especially in urban areas) choose to go directly to specialists at the secondary level. These patients may self-refer to an inpatient facility needlessly and be hospitalized unnecessarily if there are empty beds. Others self-refer to the wrong specialist (Lekhan, Rudyi, and Richardson, 2010). Stakeholders interviewed by the assessment team emphasized special referral problems faced by vulnerable groups including female sex workers, men who have sex with men, and injecting drug users and these barriers need to be eliminated.

A major role of the family medicine doctor is that of appropriate referral of patients to specialists. When this cadre is expanded, and adequately trained and equipped, the referral system should improve, as it has in Lviv where the family medicine doctor system is more advanced than in many oblasts.

### 3.3.1.2 GOVERNMENT HEALTH FACILITIES

The Ukraine health system remains overly hospital based in comparison to PHC services. Ukraine has a hospital financing system that is based on the number of beds and stimulates facilities to hospitalize patients regardless of their medical needs (Lekhan, Rudyi, and Richardson 2010) and reportedly to artificially prolong the length of hospital stays. See Section 3.2 Health Financing. This results in a high level of inefficiency and draws critical resources away from PHC services.

An analysis of trends in number of health facilities indicates a very modest increase in outpatient facilities, but no significant reduction in hospitals in recent years. See Table 3.3.2 .

**TABLE 3.3.2. TRENDS IN HOSPITALS AND OUTPATIENT CLINICS IN UKRAINE (2004–2008)**

Type of Facility	Number by Year				
	2004	2005	2006	2007	2008
Outpatient facilities	6,660	6,692	6,792	6,842	6,888
City hospitals (urban)	644	631	624	619	611
Oblast hospitals	26	26	26	26	26
Central district hospitals (rural)	473	480	477	474	473
District hospitals (urban)	679	668	648	609	580
Maternity hospitals	90	87	88	89	89
Specialized clinics	378	372	372	369	367

Source: MOH-Ukraine (a), 2009.

The ratio of hospitals to outpatient facilities in Ukraine is higher than in most neighboring countries (except the Russian Federation) and even more dramatic when compared with the EU average. See Table 3.3.3.

**TABLE 3.3.3. HOSPITALS AND PHC FACILITIES PER 100,000 POPULATION IN UKRAINE, SELECTED NEIGHBORING COUNTRIES AND THE EU**

Indicator	Ukraine (2009)	Belarus (2009)	Moldova (2009)	Poland (2008)	Russian Federation (2006)	EU (2008)
Hospitals	5.4	6.8	2.3	2.2	4.5	2.6
Hospital beds	864	1107	609	662	966	529
Average length of stay (in days)	12.7	11.5	10.0	5.9 (2008)	13.6 (2006)	8.61 (2008)
<i>PHC units</i>	15	58	21	--	9	49 (2005)

Source: WHO, European HFA-DB, January 2011.

The physical condition of health facilities varies, and a regular monitoring system for upkeep of medical facilities does not exist in Ukraine. Most of the health facilities the assessment team visited were in excellent physical condition and obviously fairly recently renovated, but these facilities were primarily concentrated at the oblast level. Earlier data collected by the Sanitary-Epidemiological Services showed that in 2007, only 29.6 percent of health facilities were on a pipeline water supply system and only 21.1 percent had a pipeline sewer system (Lekhan, Rudy, and Richardson, 2010) and this may be more representative of the rayon or village facilities.

The health reform process currently under discussion indicates a strong move toward PHC. Yet a recent presidential instruction to initiate a national “New Life” project on perinatal medicine mandates the creation of 27 high technology perinatal centers at the oblast level. This costly initiative does not align with a focus on PHC (State Agency for Investment and National Projects, 2011).

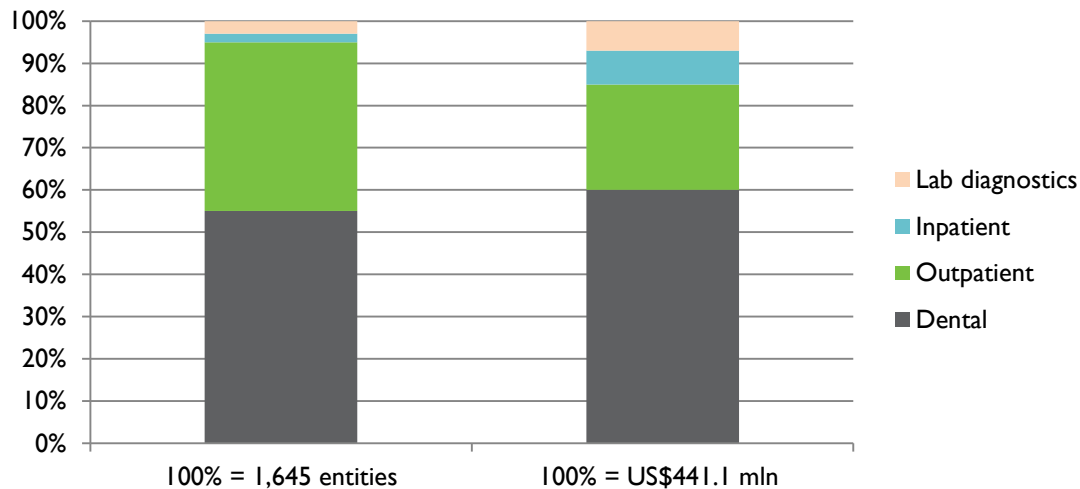
### 3.3.1.3 PRIVATE SECTOR HEALTH CARE

A system of private sector health care began to develop after independence and currently consists mainly of pharmaceutical suppliers, pharmacies, dentists, specialist medical facilities, and laboratory services. Outside pharmaceuticals and labs, the private sector remains a relatively insignificant part of the overall health system because of low numbers of private facilities, relatively high costs of private care, low level of development of the private health insurance market, the absence of a system of public contracting of medical services to private practices, and a taxation system that discourages private practice.

In 2009, there were over 1,600 private health care businesses in Ukraine, up from approximately 1,000 in 2007. (MOH data, 2010) This sector could grow faster, if health reform allows for government contracting with the private sector for health care, as is currently under discussion. It was reported that one area of the private sector that is actually expanding is that of treatment of sexually transmitted infections (STIs), in part because patients value the privacy that private providers offer. Figure 3.3.2. depicts the number of private health care service providers and the total volumes of annual sales in 2009.



**FIGURE 3.3.2. PRIVATE HEALTH CARE SERVICE PROVIDERS AND THEIR ANNUAL SALES, 2009**



Source: Data from MOH, 2010.

NGOs and faith-based organizations primarily provide supportive services, prevention, and outreach to underserved groups such as MARPS. Medical care is rarely provided to these groups, with the notable exception of ART and TB drugs for those in the penitentiary system.

### 3.3.1.4 PUBLIC HEALTH/PREVENTIVE HEALTH CARE

Public health services and preventive health care are not strong in Ukraine, nor have they been a priority. There is only one formal school of public health in the country and sanitary epidemiology courses offered in other institutes do not correspond to international standards. Mortality is extremely high in Ukraine among working age males, due to modifiable behavioral risk factors such as obesity, hypertension, alcohol, and smoking. The Ukrainian health system has not introduced cost-effective, targeted public health promotion and preventive approaches that could address these behaviors, as has been done in Europe (Menon et al., 2009). Behavior change communication is nearly invisible in Ukraine as part of the public health system.

Family medicine doctors could make a significant contribution to public health, if they were in place in sufficient numbers, and adequately trained, and there is evidence of this in Ukraine. Lviv oblast pioneered the family doctor program in 1996 through the USAID-funded *ZdravReform* Project. Between 2001 and 2010 in Lviv oblast, the percentage of the population covered by family medicine increased from 9.5 percent to 50.8 percent. Lviv health authorities cite tangible examples of the positive public health impact of screenings and preventive care delivered by family doctors including:

- Fewer cases of late stage cancer or TB appearing due to early screening;
- Increased referrals for treatment of obesity, alcohol, and tobacco abuse; and
- Fewer late-stage pregnancy problems.

Finally, while immunization is a safe, cost-effective, and internationally recognized public health measure for controlling and preventing serious communicable diseases, there has been an alarming decline in rates of childhood immunization in Ukraine in the past two years. The government has not taken steps to combat the negative press coverage and misinformation, which contributed to the public's loss of confidence in immunization (Caron et al., 2010).

### 3.3.2 ACCESS, COVERAGE, AND UTILIZATION

In rural areas, access to PHC can be uneven, with numerous communities lacking PHC facilities and the PHC workforce unevenly distributed. Even in urban areas, PHC providers are not as widely accessible and equipped as is needed. Emergency care is also uneven and apparently underfunded, and has been identified as an area of priority in the new health reform legislation. At secondary level, out-of-pocket payments are high, especially for those with multiple chronic diseases, largely driven by the high costs of medicines (Menon, 2010). This creates barriers for accessing health care, especially for lower income groups (Menon et al., 2009).

Coverage of services overall is uneven and varies across oblasts and rayons. However, coverage of antenatal and postnatal services in Ukraine is universal. While WHO recommends at least four antenatal care visits, in Ukraine, 75 percent of pregnant women have six or more antenatal care visits; and 27 percent have 15 or more (Ukraine Center for Social Reforms et al., 2008).

The frequency of women receiving postnatal care in Ukraine is also excellent. Survey data show that 95 percent of women received an examination within six weeks after delivery and that postnatal care is universally provided by a skilled health care provider (98 percent) (Measure DHS Project, 2008).

### 3.3.3 QUALITY OF HEALTH SERVICES

The quality of care received in health facilities is relatively unmonitored but perceived to be low, and to have declined dramatically in recent years (Menon et al., 2009). Until 2007, when the MOH created a special department responsible for assessing the quality of health care services and pharmaceuticals, there was no effective strategy of control over the quality of medical care at national level (Lekhan, Rudi, and Richardson, 2010). The ministry is officially responsible for the accreditation of all health facilities regardless of ownership; this is reported to be more of a formality than a tool for improving quality of services (Lekhan, Rudi, and Richardson, 2010). Oblast health authorities are responsible for monitoring PHC services at the local level (Menon, 2010).

While progress has been made in updating a limited number of clinical practice guidelines on priority topics, day-to-day medical practice is still largely based on outdated standards and protocols. A culture of evidence-based medicine is not ingrained in guideline review and development processes, nor does it form the basis for undergraduate medical education. Professional medical associations are weak, requiring additional capacity to provide resources and promote quality standards among health professionals. Facility-level quality improvement initiatives are needed to implement evidence-based guidelines and standards, and to assess the quality of care they provide through self-assessment, peer review, and patient feedback and input mechanisms, in order to make continuous improvements.

A government order issued in 2008 was intended to improve the quality of medical care and is currently being implemented in principle. It is based on the creation of one unified multi-level system of quality control, with the introduction of evidence-based medicine and systematic monitoring for health care quality. Current discussions on health reform indicate a stronger orientation to quality, including the development and measurement of appropriate indicators, which do not exist at present.

### 3.3.4 SERVICE DELIVERY AND HIV/AIDS

The AIDS epidemic in Ukraine is the most severe in all of Europe and Central Asia. It stresses the functioning of the existing health care delivery system and also highlights existing barriers and weaknesses in that system that impede the rapid scale-up of an effective response to the epidemic.

### 3.3.4.1 THE GOVERNMENT HEALTH SYSTEM RESPONSE

The State program for HIV/AIDS is defined by the National Operational Plan for Ukraine 2011–2013, “The State Program to ensure HIV prevention, treatment, care, and support to HIV-positive people and patients with AIDS for years 2009–2013, approved by the Law of Ukraine #1026, date February 19, 2009” (Alexandrin et al., 2010). A new AIDS law, developed by the MOH with support from NGOs and international organizations, was signed into law on January 15, 2011, and provides a positive policy environment for combating the epidemic.

The USAID-funded HIV/AIDS policy assessment was conducted at the same time as this HSA was underway. That team’s findings, not available to this team, will be useful in future in better understanding Ukraine’s policy environment.

A functioning network of 40 AIDS prevention and control centers and 737 *Kabinet Dovira* (trust rooms)<sup>5</sup> exists in Ukraine (National report on monitoring progress towards the UN General Assembly Special Session (UNGASS) declaration of commitment on HIV/AIDS. 2010). These national and oblast AIDS centers are the health system’s primary agent for delivering HIV/AIDS testing and treatment services. Outreach and prevention services are often provided by donor- and local government-supported NGOs, where available. Diagnostic lab services are provided by a national lab network. There is fragmentation, limited accountability, variable reporting by medical institutions, and discrepancies between declared and actual services at the local levels (Semegina et al., 2007). The state budget covers the majority of costs for the central procurement of drugs, diagnostics and supplies, blood safety, and treatment while other HIV/AIDS services (care and support, harm reduction, work with vulnerable groups, and advocacy) are funded by donors and oblast and local budgets.

#### **Decentralization of services**

The delivery of HIV/AIDS services is a vertically funded and managed program. The overall health system in Ukraine suffers from insufficient decentralization and coordination, and that also affects the National AIDS Program. Most health-related HIV services – prevention, treatment, care and support – are currently concentrated in regional (oblast) capitals, with little connection to the mainstream health system, particularly PHC providers or with NGOs that provide outreach, prevention, and supportive services. This limits accessibility of patients from small towns, district centers, and villages (National Council to Fight Tuberculosis and HIV/AIDS, 2010). The Round 10 Global Fund program will improve services in rural areas through support and capacity building of consortia of public and private institutions, government and NGOs at the local level, and PHC units (National Council to Fight Tuberculosis and HIV/AIDS, 2010). In addition, greater formal connections with NGO service providers for MARPS would increase effectiveness of reaching these groups.

### 3.3.4.2 ASSISTANCE FROM THE GLOBAL FUND

The prevention and treatment capacity of Ukraine to address the AIDS epidemic has been enhanced tremendously by funds provided by the Global Fund.<sup>6</sup> While the generous level of funding and vertical nature of the Global Fund assistance did, undoubtedly, help create rapid scale-up of services, it raises questions about sustainability, and the ability to integrate AIDS services into the overall health system. A summary of Global Fund assistance in HIV/AIDS is described in Table 3.3.4.

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<sup>5</sup> “Trust rooms” are offices within clinics made available for confidential counselling and testing.

<sup>6</sup> *Vision of Round 10: to foster a long term sustainable public health care system for the scale-up and intensification of comprehensive HIV/AIDS prevention, treatment, care and support services that are better integrated, institutionalized and provide better quality, gender sensitive and equitable access to services for MARPs and PLWHA [people living with HIV and AIDS] and other target populations in Ukraine.*

**TABLE 3.3.4. GLOBAL FUND ASSISTANCE TO THE HIV/AIDS PROGRAM IN UKRAINE**

Funding Cycle	Period	Principle Recipients
Round 1	2004–2009	International HIV/AIDS Alliance in Ukraine (Alliance)
Round 6	2007-present	International HIV/AIDS Alliance in Ukraine (Alliance) All Ukrainian Network of PLWH (Network)
Round 10	Scheduled to start Jan 1, 2012	International HIV/AIDS Alliance in Ukraine (Alliance) All Ukrainian Network of PLWH (Network) Ukraine AIDS Center/MOH

### 3.3.4.3 AIDS PREVENTION

The vast majority of prevention efforts in Ukraine (especially those aimed at MARPS) have remained the responsibility of a variety of NGOs working with, and under, the International HIV/AIDS Alliance in Ukraine (Alliance) and the All Ukrainian Network of PLWH Network. Their activities include substitution treatment, education, provision of condoms, needle exchange, STI testing, etc. While many NGO-led prevention efforts have been of high quality, they are not available in all oblasts or rayons. The GOU’s role in the prevention area has been minimal, and Ukraine’s lack of a strong, viable public health system inhibits their ability to respond in the way other AIDS-affected countries have.

Some success has been achieved in a reduction of transmission via IDU as a result of education programs, needle exchange, and substitution therapy (which remains limited in scope and very politically sensitive). UNAIDS has documented that implementation of evidence-based harm reduction programming have reduced the HIV incidence among people who inject drugs in Ukraine (UNAIDS, 2010) and Ukraine’s experience has become a UNAIDS “best practice.”

### 3.3.4.4 PMTCT

Prevention of mother-to-child transmission (PMTCT) is now the responsibility of government. In part a result of the strong MCH system in Ukraine, particularly the system of Women’s Consultation Centers, PMTCT has been successful in Ukraine. The MTCT rate has reportedly dropped from 27.8 percent in 2001 to 6.2 percent in 2007 (Aleksandrin et al., 2010). The percentages of women and children who received the key indicators of PMTCT are as follows (WHO et al., 2010):

- Pregnant women tested for HIV: >95 percent
- HIV+ pregnant women receiving ARV drugs: 76–95 percent
- Infants born to HIV-positive women receiving ARV drugs and cotrimoxazole prophylaxis: >95 percent
- Infants born to HIV-positive women receiving an HIV test by two months of age: 69 percent

### 3.3.4.5 LABORATORY SUPPORT

A variety of reliable and rapid laboratory tests are critical for initially diagnosing HIV infection, determining the initiation of treatment, and monitoring the effectiveness of treatment. Overall, the laboratory component of the National AIDS Program is considered inadequate. Voluntary HIV testing is available in trust rooms and blood samples are referred to the oblast AIDS centers. An estimated 360,000 Ukrainians are living with HIV; however, in 2009, only 13.1 percent of women and men aged 15–49 had received an HIV test in the last 12 months and knew their test results (Aleksandrin et al., 2010). MARPS especially lack access. There are only 8.5 HIV testing and counseling facilities/100,000 adult population (WHO et al., 2010). Because the GOU does not follow the internationally recognized practice of using two “rapid” tests to confirm HIV infection, clients tested in voluntary testing and

counseling centers have to return several days later to determine their HIV status. Pregnant women are tested twice during pregnancy, or during labor if they have not had earlier tests during pregnancy. Until recently, private facilities, including NGOs, were not allowed to perform HIV tests – this has recently changed with new regulations, and could improve overall access if test prices are affordable.

In most oblasts, CD4 and viral load tests for people living with HIV are sent from the oblast AIDS center to state laboratories for analysis. Monitoring of drug resistance has only recently begun.

In terms of quality, there is apparently no system for laboratory accreditation or external quality control of laboratory testing (National Council to Fight Tuberculosis and HIV/AIDS, 2010). The overall laboratory system will be improved in 2012 with the support of the Global Fund Round 10 and to some extent a PEPFAR-funded, U.S. Centers for Disease Control and Prevention (CDC) project.

#### 3.3.4.6 TREATMENT

ART treatment protocols in Ukraine are in compliance with current WHO guidelines and international best practice and evidence, and are reviewed regularly by working groups of specialists within Ukraine under the guidance of the National AIDS Center. Treatment is primarily offered by, and funded by, government through oblast AIDS centers (one in every oblast). In some cases, treatment is available at rayon level as well, in oblasts where seroprevalence is high and oblast AIDS center managerial capacity is strong. NGOs also provide approximately 10 percent of ARV treatment in Ukraine, primarily to vulnerable groups such as prisoners.

Estimates vary greatly, however, on the number and percent of HIV-infected, treatment-eligible Ukrainians who actually receive ART. Reasons for lack of treatment or incomplete treatment include:

- An absolute shortage of government-procured drugs due to the high cost of drugs resulting from irregular tendering procedures (See Section 3.5 Medical product management)
- Drug stock-outs at specific AIDS treatment centers due to lack of adequate forecasting and monitoring
- Non-compliance by patients (especially injecting drug users)
- Inconsistent supply of drugs for prisoners as they move to different facilities within the penitentiary system, and ultimately leave the prison system
- Lack of sufficient pediatric ART formulations for very young children

In 2009, the rate of ART treatment of HIV-infected active injecting drug users remained limited, and that group comprised only 7.5 percent of the total number of those receiving ART. This was due to insufficient availability of substitution maintenance therapy, and hence problems with adherence to ART (Alexandrin, 2010).

#### 3.3.4.7 QUALITY ASSURANCE

A recent analysis of the HIV/AIDS National Operational Plan (USAID (b), 2010) identified the following gaps in quality assurance:

- Legal and regulatory systems are strictly defined, but they currently do not help increase transparency, or ensure standardized, internationally accepted approaches to procurement and supply management (PSM), nor maintain consistent availability and appropriate use of medicines of assured quality at a reasonable cost.
- The system for laboratory accreditation needs to be improved and quality assurance and external quality control of laboratory testing needs to be developed.

- Policies regarding injection safety are in place. However, medical personnel often forgo the standard use of protective barriers mainly due to limited supply of disposable commodities particularly in prison settings.
- Blood safety is severely compromised by the lack of any system for external quality assurance and quality control for laboratory test kits that are used in the country and procedures.

### 3.3.4.8 OTHER CONSTRAINTS TO PROGRAM SUCCESS

A comprehensive evaluation of Ukraine's AIDS program conducted in 2009 (UNAIDS 2009) and the Global Fund Round 10 Proposal revealed a number of shortcomings that relate to the overall health system and that impede the control of HIV/AIDS. These include:

#### **Prevention and supportive services:**

- Lack of an integrated approach to address overlapping risk behaviors.
- Absence of a comprehensive behavior change strategy, particularly related to stigma and discrimination by health providers
- Limited oblast-level government financial support for prevention activities among MARPs.
- Inadequate social services for HIV-infected children and youth

#### **Testing and treatment:**

- Limited and erratic access to voluntary counseling and testing
- Focus on rapid scale-up of coverage of programs, without adequate attention to quality and intensity of interventions.
- Poor mobilization of resources to support the integrated diagnosis and treatment of people with HIV/AIDS and other life-threatening health conditions (such as TB).
- Oblast AIDS centers are not adequately equipped to address all of the medical needs of people with HIV in an oblast or even a large city.
- Inadequately equipped health providers.

### 3.3.5 SERVICE DELIVERY AND TUBERCULOSIS

The National TB program in Ukraine began in 2007 and operates under the Law of Ukraine on Approval of the National Program against TB for 2007–2011. However, the outdated health system that is fragmented, hospital centered, and reliant on an inflexible system of financing, described earlier in this chapter, also negatively affects the TB sector. Specific problems with implementation of Ukraine's Stop TB strategy include (WHO, Regional Office for Europe (b), 2011):

- Responsibilities are fragmented between central government, oblast administrations, and numerous bodies at municipal, rayon (district), and village level.
- Case detection success is diluted by the non-cost-effective approach of screening nontargeted populations.
- There is excessive hospitalization, with poor infection control practices.
- Laboratory capacity is limited.
- Treatment is primarily hospital-based and dependent upon erratic availability of locally purchased anti-TB drugs.

- Directly Observed Treatment Short Course for TB (DOTS) has not been well implemented, largely because health providers lack proper training in DOTS.
- Reporting is often not accurate.
- Care-seeking behavior is inadequate.
- Many MOH orders on TB identification and treatment do not correspond to international guidelines.

The Ukrainian health system has compartmentalized the care for, and the diagnosis of TB via a vertical and centralized system featuring specialized TB clinics and dispensaries at the oblast and municipal levels. Government funding has been reduced significantly for TB services, and TB treatment is hampered by the loss of infrastructure, and disinterest among staff due to low salaries, and reduced staff (Vassall et al., 2009). Ukraine's performance in TB prevention and treatment is compared in Table 3.3.5. with Belarus, Moldova, and the Russian Federation, countries with similar TB epidemiology.

**TABLE 3.3.5. TB PROGRAM PERFORMANCE: UKRAINE, BELARUS AND MOLDOVA**

	Ukraine	Belarus	Moldova	Russian Fed.
Case detection rate (2009)	78%	140%	68%	84%
% of cohort cured (2008)	56%	68%	51%	54%
% of treatment success (2008)	62%	71%	57%	57%

Source: WHO, Regional Office for Europe (d), 2010c.

### 3.3.5.1 THE REFERRAL SYSTEM

The basic steps in the TB referral system (for passive case finding) are as follows:

- Self-reporting of symptomatic patients to general health services or to TB facilities
- Initial diagnosis with sputum smear microscopy or chest X-ray
- Referral to a TB facility for diagnosis (during which time patients are often hospitalized in wards with other TB patients without proper infection control)
- Treatment (at various inpatient and outpatient facilities)

Early diagnosis of TB is inhibited by the lack of trained family doctors to recognize TB symptoms, provide microscopy, and refer TB patients as appropriate.

### 3.3.5.2 TB/HIV CO-INFECTION AND INTEGRATION OF TB AND HIV/AIDS CARE

TB and HIV/AIDS are inextricably linked and as such, collaborative activities are essential to ensure that: a) HIV-infected TB patients are identified and treated appropriately, and b) HIV-infected people are prevented from contracting TB (WHO (a), 2004). In Ukraine, an estimated 11 percent of TB patients were HIV-infected in 2009 (WHO, Regional Office for Europe (b), 2011).

A recent evaluation (WHO, Regional Office for Europe (b), 2011) noted that a) collaboration on TB/HIV co-infection is limited; b) NGOs are not being used to their full potential, c) the clinical protocol for case management of TB/HIV is often not followed, and d) there is a gap in surveillance and monitoring of TB/HIV collaborative services. However, some new and promising interventions underway to address co-infection include:

- The establishment of oblast TB/HIV coordination councils and TB/HIV pilot projects
- Ensuring that TB patients are tested for HIV and that HIV-positive patients are tested for TB

- Provision of TB supplies (sputum equipment, etc.) to HIV service delivery points
- Introduction of computer software such as “e-TB” that can track and manage co-infection
- Stronger collaboration between oblast AIDS centers and oblast TB centers is encouraged in the Global Fund Round 6 TB grant

### 3.3.5.3 OTHER

The overall quality and reach of the TB system in Ukraine will be enhanced by the Global Fund Round 9. The Global Fund goals include improved diagnosis by optimizing the TB laboratory system, improved access to high-quality TB health services, improved governance in the TB system, and raised awareness, mobilization, and political support for reduced stigma. The laboratory component, in particular, will be strengthened by a forthcoming PEPFAR-funded CDC project.

A comprehensive evaluation of TB in Ukraine provides extensive analysis of the current TB system as well as recommendations (WHO, Regional Office for Europe (b), 2011).

## 3.3.6 SERVICE DELIVERY AND FAMILY PLANNING

### 3.3.6.1 OVERVIEW

In 2006, the National Reproductive Health Care program was initiated as a vertical program and various protocols were adopted for use by government facilities. At the oblast, rayon, and local levels family planning services are available at oblast family planning centers, and reproductive health services are provided through maternity hospitals and women’s hospitals. At rural levels, some PHC centers provide family planning and reproductive health services. MCH services are offered in an extensive infrastructure of facilities including Women’s Consultation Centers, medical-genetic consultations, children’s polyclinics and hospitals, family planning centers, and maternity hospitals (Ukrainian Center for Social Reforms, et al., 2007; Zhuravliov et al., 2010).

Family planning services offered by government vary considerably by oblast. The NGO family planning sector is still relatively young in Ukraine, and no family planning NGOs currently offer services.

Two assessments had recently been conducted on family planning in Ukraine and supported by USAID: a KAP (knowledge, attitudes and practices) assessment, and a contraceptive security assessment. Assessment reports were not available to this assessment team, but will be helpful in informing the overall status of Ukraine’s family planning situation when they become available.

### 3.3.6.2 ABORTION

Ukraine, like other former Soviet countries, has attempted to reduce the practice of induced abortion (as a way to address unplanned/unwanted pregnancies), in favor of modern contraception. This has met with some success. The abortion ratio has fallen steadily from 573.48 per 1,000 live births in 2003 to 281.04 in 2008 (WHO, Regional Office for Europe (a), 2011), but was still about two times higher than the EU average. The MOH data report considerably higher rates than the HFA-DB data, but do show a drop of 11 percent in the abortion ration between 2008 and 2009 (Zhuravliov et al., 2010).

### 3.3.6.3 CONTRACEPTIVE USE

The primary sources of modern contraception in Ukraine are pharmacies (49.3 percent), and public sector (mostly Women’s Consultation Centers and hospitals/maternity homes) (27.8 percent), other (primarily friends/relatives/neighbors) (20.3 percent), and private sector providers (1.6 percent) (Ukrainian Center for Social Reforms et al., 2007). In 2007, only 4 percent of modern method users received their contraceptive method free of charge (Ukrainian Center for Social Reforms et al., 2008).



In terms of coverage of family planning care, while family planning is part of the official job description of general practitioners and family doctors, a recent survey found that in Kiev only 38 percent of them provide family planning. Only 30 percent of district therapists (internists) provide family planning (Menon, 2010). An increase in the number of family medicine doctors, as well as provision of complete family planning training for this cadre, could improve the extent and quality of family planning in Ukraine dramatically.

USAID has supported through the Together for Health (TfH) project the goal of reducing the number of abortions, unintended pregnancies, and STIs, by improved provision of and access to quality FP/RH services (JSI, 2009). USAID’s supply of contraceptives has been the cornerstone of the family planning program in oblasts in which USAID works. However, government restrictions on the import of donated contraceptives not registered in Ukraine has slowed supply and distribution of USAID contraceptive commodities.

The use of any contraceptive method has changed little in recent years (68 percent in 1999 to 67 percent in 2008) (. While the use of modern contraceptive methods<sup>7</sup> increased 34 percent over the same period, from 38 percent in 1999 to 51 percent in 2007 (Measure DHS Project, 2008), the use of hormonal contraception is still 12 times less in Ukraine than in the EU (Zhuravliov et al., 2010).

Data on couple years of protection (CYP), however, presents a more negative picture than contraceptive use data. CYP calculated by contraceptive sales data, government contraceptive procurements, and USAID-donated condoms showed that after gradual increases in CYPs in prior years, CYPs fell 20.5 percent from 2009 to 2010 (JSI 2010). Reasons for the drop in CYP are not entirely clear, although the economic situation, combined with substantial increases in contraceptive prices, are thought to play a role in changing the method mix to those with shorter terms (from oral contraceptives to condoms, for instance.)

### 3.3.6.4 COMPARISON WITH OTHER COUNTRIES

A comparison of contraceptive prevalence and abortion rate between Ukraine and neighboring countries is found in Table 3.3.6.

**TABLE 3.3.6. CONTRACEPTIVE PREVALENCE AND ABORTION RATES IN UKRAINE AND SELECTED NEIGHBORING COUNTRIES**

	Ukraine	Belarus	Moldova	Poland	Russian Fed.	CEE/CIS	EU
Contraceptive prevalence (2003–2008)*	67	73	68	49	--	64	--
Abortions/1,000 live births (2008)**	281.04	391.16	497	1.2	--	--	234.47

Source: \* UNICEF, 2009; \*\* European HFA-DB, January 2011.

<sup>7</sup> Modern contraceptives are defined here as female and male sterilization, intrauterine devices, hormonal methods, condoms, and vaginal barrier methods.

### 3.3.7 SWOT ANALYSIS

**TABLE 3.3.7. SWOT ANALYSIS FOR HEALTH SERVICE DELIVERY**

Equity, Access, Efficiency, Quality, and Sustainability		
Strengths and Opportunities	General Health Services	<ul style="list-style-type: none"> <li>The MCH system is strong in coverage and generally adequate in quality</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>Global Fund increases prevention and treatment services</li> <li>The PMTCT program has shown significant success</li> <li>Some progress has been made in curbing HIV transmission related to IDU</li> <li>The protocols for diagnosis and treatment follow international, evidence-based protocols</li> </ul>
	TB	<ul style="list-style-type: none"> <li>Ukraine has taken bold steps towards improving TB control, including the allocation of significant funds.</li> <li>TB drugs for first line treatment are generally available</li> <li>The forthcoming Global Fund Round 9 will strengthen the TB response, especially in the laboratory area</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>Reliance on abortion is decreasing</li> <li>Free contraceptives are available in oblasts where USAID support is concentrated (but not nationwide)</li> <li>There is opportunity for family medicine doctors to support family planning (if this cadre is increased and trained)</li> </ul>
Weaknesses and Threats	General Health Services	<ul style="list-style-type: none"> <li>The current structure of the health system, hospital-based and specialist-based, prohibits delivery of essential, affordable, effective PHC</li> <li>The public health system does not respond to the high burden of largely preventable, chronic diseases in Ukraine</li> <li>Low salaries of health personnel, lack of supplies and equipment, and inadequate training lead to suboptimal care</li> <li>Immunization coverage has dropped to dangerously low levels and requires urgent action</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>MARPs lack access to prevention or treatment services</li> <li>Most treatment-eligible HIV-infected persons lack access to life-saving ART due to stock-outs, inadequate supply chain, and the high cost of government-procured ART</li> <li>Substitution therapy is inadequate, politically contentious</li> <li>Laboratory services need strengthening</li> </ul>
	TB	<ul style="list-style-type: none"> <li>Treatment does not meet demand, quality of TB care and treatment outcomes is poor</li> <li>The high rate of MDR (and XDR) TB poses serious threats</li> <li>TB/HIV co-infection is not adequately addressed, in part because of the verticality of the two systems</li> <li>MARP lack access to TB diagnosis and care, including treatment for persons in the penitentiary system</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>Family planning counseling is weak, leading to inconsistent and improper use of contraceptives</li> <li>The contraceptive method mix is not ideal</li> <li>There is over-medicalization of OCs in health facilities</li> <li>Counseling on hormonal contraceptives by pharmacies is inadequate</li> </ul>

### 3.4 HUMAN RESOURCES

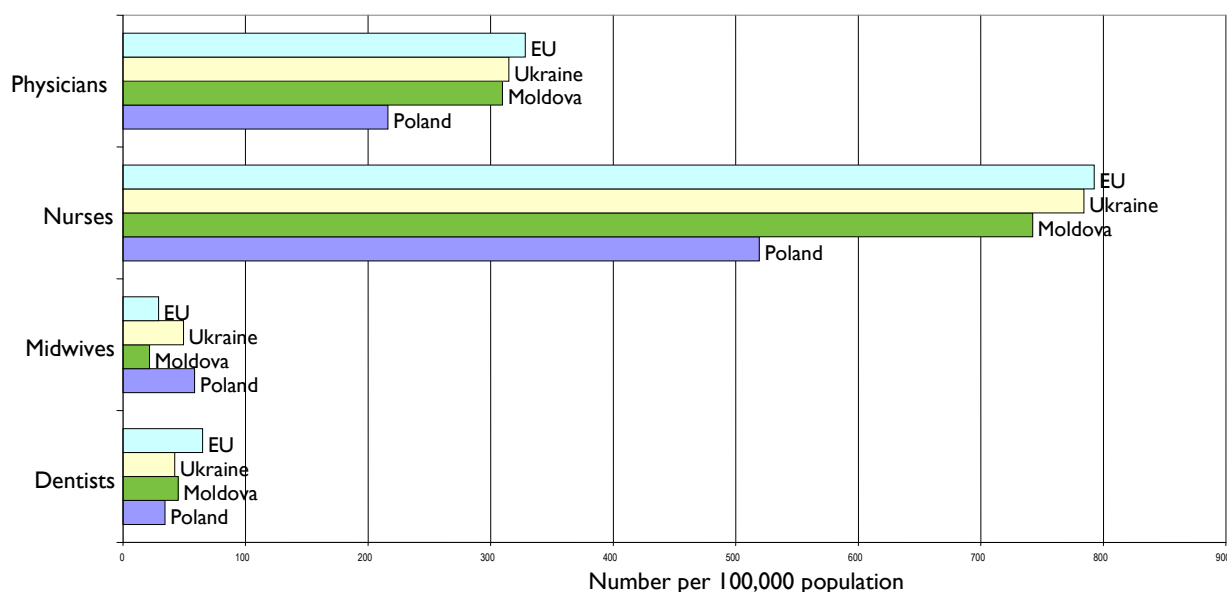
Effective functioning of the human resources component of the health system requires a strong HR management system that integrates policy, financing, education, partnerships, and leadership on human resources in a comprehensive and continuous process. This process should include situational analysis, strategic planning that reflects findings from this analysis, and implementation of the plan that is supported by a continuous M&E against set targets (Global Health Workforce Alliance, 2011).

This section starts with an overview of the supply, trends, and distribution of health workers in Ukraine, followed by sections that address each of the components of the human resources for health (HRH) management system.

#### 3.4.1 SUPPLY AND DISTRIBUTION OF HUMAN RESOURCES

Ukraine has an adequate overall number of health care workers. The number of physicians and nurses relative to the population in Ukraine is close to the average for the EU, while the number of midwives is substantially higher; the number of dentists is lower than the EU average but in line with the figures for Poland and Moldova (Figure 3.4.1.). The number of practicing physicians per 100,000 population in Ukraine increased from 319 to 327 between 2005 and 2010 (according to MOH data), which is in line with the average of 310 for Organization for Economic Cooperation and Development (OECD) countries in 2007 (OECD, 2009).

**FIGURE 3.4.1. NUMBER OF PHYSICIANS, NURSES, MIDWIVES, AND DENTISTS PER 100,000 POPULATION IN UKRAINE AND SELECTED OTHER COUNTRIES, 2008–2009\***



Source: WHO/Europe, European HFA-DB, January 2011.

\*Data for Moldova and Ukraine are from 2009, data for all other countries are from 2008. Data for Moldova and Ukraine during 2007 and 2008 were not found.

Table 3.4.1 shows recent trends in health sector staff for several key categories. In 2005–2010, the number of practicing physicians and laboratory specialists remained stable, while the number of nurses, midwives, and feldshers (paramedics) has been decreasing slowly (by less than 1 percent per year). There was a slight increase in the number of management staff, and a 3.5 percent increase in the number of dentists. Give the declining population in 2005–2010, the number of health workers per capita in each of these categories remained unchanged or increased slightly.

In 2000, Ukraine introduced a new PHC model based on the principles of family medicine. This model relies on family doctors (general practitioners) who practice in polyclinic facilities and serve as referral points for secondary level specialists (see Service Delivery, section 3.3). However, by 2010, Ukraine still had only 8,140 family doctors per 100,000 per population, which is far short of the target of 22,000. While the number of family doctors increased by 64 percent from 2005 to 2010, the rate of increase has slowed down over time, reaching close to zero in 2010 (Table 3.4.1)

**TABLE 3.4.1. NUMBER OF HEALTH WORKERS IN UKRAINE (SELECT CADRES), 2005–2010**

	2005	2006	2007	2008	2009	2010	% change 2005–2010
Doctors (all types, excl. dentists)	174,143	175,417	175,046	175,616	176,754	175,752	0.9%
% change from previous year		0.7%	-0.2%	0.3%	0.6%	-0.6%	
Practicing physicians, clinical medicine	150,185	149,990	149,053	149,020	149,392	149,618	-0.4%
% change from previous year		-0.1%	-0.6%	0.0%	0.2%	0.2%	
Family doctors	4975	5825	6815	7772	8112	8140	63.6%
% change from previous year		17.1%	17.0%	14.0%	4.4%	0.3%	
Nurses, midwives, and feldshers	367,163	365,138	362,389	360,119	360,414	358,492	-2.4%
% change from previous year		-0.6%	-0.8%	-0.6%	0.1%	-0.5%	
Dentists	20,588	20,539	20,509	20,582	20,894	21,313	3.5%
% change from previous year		-0.2%	-0.1%	0.4%	1.5%	2.0%	
Laboratory specialists	35,091	35,258	35,417	35,238	35,672	35,389	0.8%
% change from previous year		0.5%	0.5%	-0.5%	1.2%	-0.8%	
Management staff	12,357	12,511	12,612	12,297	12,412	12,532	1.4%
% change from previous year		1.2%	0.8%	-2.5%	0.9%	1.0%	

Source: MOH.

According to 2010 data from the Pharmaceutical Association, there are about 140,000 pharmacists employed in Ukraine, of which about 44,000 have high education and the rest are mid-level staff. Using these estimates, there are about 96 pharmacists with higher education per 100,000 population in Ukraine; this compares with 74 in the EU, 62 in Poland, and 80 in Moldova (WHO, Regional Office for Europe (a), 2011). Data on pharmacists are not available at the MOH.

Most pharmaceutical specialists work in pharmacies (83 percent), while 8 percent work in hospitals and 9 percent work for pharmaceutical manufacturers and distributors, according to Pharmaceutical Association data. Because most pharmacies (85 percent) are private, it follows that the percentage of pharmaceutical specialists working in the public sector is relatively small.

The MOH started collecting data from private health care facilities in 2008. In fiscal year 2008/09, about 30 percent of dentists were in private practice, while only 3 percent of physicians, 2 percent of nurses, and 1 percent of laboratory specialists worked in private health care facilities (according to data provided by MOH).<sup>8</sup> Typically, less than half of the staff in private health facilities are full-time employees, with the exception of dental practices which are mostly staffed by full-time personnel. Those who work part-time in private facilities are primarily working in the public health sector. Less than 1 percent of general practitioners/family doctors work in private practices (Lekhan, Rudyi, and Richardson, 2010).

While the overall number of health cadres is adequate, their geographical distribution is uneven. According to MOH data, there are 530 doctors per 100,000 population in urban areas, compared with

<sup>8</sup> Data on private providers for 2010 was not yet available at the time this report was finalized.

69 doctors in rural areas. The number of doctors per 100,000 population varies widely by region: from more than 550 in Kiev city and Chervinetsk region to less than 320 in Hersonsk and Mykolaevsk regions. The number of dentists per capita in Hersonsk, Mykolaevsk, and Zaporizk is less than a third of the number in Kiev city and Lviv region. The variation is less pronounced for mid and low-level nurses and staff, though notable regional differences remain.

### **Vacancies and shortages**

In 2009, 20 percent of physician posts and 5 percent of posts for mid-level health staff in public facilities were vacant; these figures had changed little since 2005 (Ukrainian Institute for Strategic Research, 2010). Overall health staff vacancies in rural areas were higher than in urban areas, at 22 percent and 16 percent respectively.

At the same time, the health workforce is aging, as new graduates chose to work outside the state health system or seek opportunities abroad. This problem is especially serious for PHC staff: while 15 percent of mid-level staff and 23 percent of all doctors were of retirement age in 2009, this figure was 38 percent among PHC physicians and family doctors (Ukrainian Institute for Strategic Research, 2010). As a result of staff shortages, 24 percent of PHC physicians and family doctors in urban areas and 32 percent in rural areas are overloaded (serving over 2,000 population per physician) (Slabkiy, 2011). An area with a particularly high rate of vacancies is TB: in 2009, 30 percent of TB specialist posts were vacant (Ukrainian Centre for Tuberculosis Control, 2010). While a high proportion of TB specialists (more than half in some regions) are close or beyond retirement age, the specialty is not a popular choice among new graduates as it involves higher occupational risk and work with socially difficult patients (WHO, Regional Office for Europe (b), 2011).

Low wages, the low status of the medical profession, and poor working conditions in health facilities are consistently cited as the main factors that discourage health professionals to join or remain in the public health sector. Poor social conditions and infrastructure in rural areas make posts there difficult to fill. New graduates posted to rural or remote areas as part of their two-year service requirement (state-sponsored students only) typically leave their posts as soon as they fulfill the requirement. In Kiev and other big cities, availability of alternative better-paid occupations is widely perceived to draw health workers away from the health care system.

The scarcity and geographic misdistribution of family doctors is of particular concern, and the rapid aging of the family doctors contingent is critical. In 2010, family doctors covered 41 percent of the population, ranging from less than 10 percent in Kiev to 84 percent in Zakarpatski region (Slabkiy, 2011). An additional challenge is the high turnover for family doctor posts: 22 percent of posts were vacant, ranging from 5 percent in Lviv region to 34 percent in Kirovgrad region (Slabkiy, 2011). The regional differences are explained by a number of factors, including commitment by local authorities to the family doctor model and the economic context in a particular location. For example, Lviv region pioneered the family doctors model in the mid-1990s and has had continuity in local leadership that recognized the value of the model for health service delivery, despite initial challenges in re-training PHC physicians to serve as family doctors.

Overall, current trends in the family doctor workforce do not reflect the national priority of expanding family medicine: in 2010, the number of newly trained family doctors was only 626, including new graduates and retrained specialists (Slabkiy, 2011); this is equivalent to a 7 percent of the number of family doctors in 2009, and barely offsets the number who left their posts that year.

Apart from the estimate of the number of family doctors needed for the country, estimates of vacancies and shortages of health personnel may be somewhat misleading as they are typically calculated against national norms and not against needs.

### 3.4.2 PLANNING AND ALLOCATION OF HUMAN RESOURCES

Among the key policy objectives for human resources development in the health sector listed in a 2007 joint report by MOH, the Ministry of Economy, and development partners (Lekhan and Rudyi, 2007) are the “creation of a human resource planning system to meet the needs of the sector” and “speeding up training of those specialists who are in great demand by the health care system (general practitioners/family physicians, health care managers and economists).”

There is attention to the problems with human resources in the health sector at high levels of the state administration and recognition that these problems are an impediment to plans for health care reforms. However, there is no strategic national plan for human resource development in the health sector to address these issues. The lack of such a plan at the national level is a critical gap for a comprehensive and effective planning, allocation, and development of the health workforce.

It is unclear what the main reasons are for lack of a national human resources strategic plan. Inadequate capacity for evidence-based strategic planning in the MOH system and policy-making structures could be one of the constraints. Capacity to produce evidence to support the process does not appear to be a constraint: Ukraine has adequate data on human resources flowing through the routine HIS from facility to central MOH level, as well as strong analytic and research capacity at central to support evidence-based human resources planning (despite the limited material resources supporting statistical and research institutions). The Ukrainian Institute for Strategic Research, under the MOH, produces analytic reports on human resources and other aspects of the health system to inform MOH planning and policies. These resources can support the development of a national strategic plan for human resources development in the health sector. Therefore, strengthening the capacity for use of evidence-based strategic planning would be important to move this process forward. Some technical assistance is already being provided in this area – for example, WHO recently supported a workshop on the principles of strategic planning.

The health workforce planning mechanisms currently in place at national, regional, district, and facility level do not reflect the health care needs of the population. Planning also does not account for regional differences in the population demographic and health profile. Thus, it is unclear to what extent the high rate of vacancies of health cadres are a threat to effective service delivery, and how this may vary across facilities.

Within facilities, human resources capacity planning follows rigid normative standards that do not allow for effective human resources management.<sup>9</sup> In hospitals, the defined bed capacity norms directly determine staffing, which is set according to numbers of hospital beds. Staffing levels for polyclinic facilities and outpatient units are determined by MOH norms that are defined by population numbers in the facility catchment area and administrative level of the facility (village, rayon, municipal, oblast). The number of nurses for outpatient care is determined according to norms linked to the numbers of physicians. The normative allocates a set number of beds per physician in a given specialty and does not distinguish between lower-level facilities that treat less complicated cases and tertiary hospitals where physicians need to spend more time with each patient. As a result of this staff allocation process, many facilities or wards have idle staff, while staff in other facilities is overwhelmed by patient loads.

Current discussions of health care reform options focus on optimization of the health facility network. Such optimization will address some of the root causes of the current misallocation of health cadres. The Ukrainian Institute for Strategic Research under the MOH has been tasked with identification of ways to optimize the organization and size of secondary and tertiary care, and forecasting the demand for human resources for the health system.

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<sup>9</sup> Ministerial Order Number 33 “About staff standards and model of personnel within the health care facilities.”

A key constraint for effective management in the health sector is the shortage of appropriate management skills and training among managers at all levels. Under the current system, higher level health care managers are typically clinicians with extensive experience in medicine but little managerial training or experience (this is reflected, for example, in the job title for hospital managers, “Chief Physician”). Recent steps to address this issue are discussed further in the section on education below.

### 3.4.3 FINANCING OF HUMAN RESOURCES

#### 3.4.3.1 SALARIES

Salaries in the public health sector are very low both in nominal terms and compared with salaries in other sectors of the economy. In 2009, the average monthly salary in health care and social services was 1,555 HUA (US\$196), compared with US\$1,096 in Poland (Ukrainian Institute for Strategic Research, 2010). A medical doctor with the highest qualifications and a specialization that is among the best paid usually does not earn more than US\$300 a month, including bonuses and additional payments. Family doctors on average earn US\$200 a month. Salaries in the education sector in Ukraine are, on average, 20 percent higher and salaries in industry are about 60 percent higher than in the health care and social service sector (Ukrainian Institute for Strategic Research, 2010).

The low health worker salaries have produced a culture of informal payments by patients to providers, and to the low prestige and attractiveness of the medical profession for those entering the workforce. A more structured system of informal payments has emerged within some government facilities, where health workers are expected to collect enough from their patients to pay their department head a specified amount per month, who in turn, pays the hospital director a specified amount. Given the low wages of health workers, this system allows health managers to earn a living wage in spite of less contact with patients. Yet it distorts incentives and creates barriers to access and inefficiencies in service delivery. See Section 3.2 Health Financing for a discussion on impact of unofficial payments.

Salaries for health workers in the private sector are substantially higher than in the public sector. The monthly salary in private clinics is about US\$700 for internists, US\$1,300 for OB/GYN doctors, and can reach more than US\$3,000 for specialist surgeons. The starting salary for nurses in private clinics (about US\$250) is more than twice as high as in public facilities, while for nurses with higher qualifications and experience it can be up to four times higher. Health workers in some private clinics also receive bonuses that are typically between 10 percent and 20 percent of their salary.

#### 3.4.3.2 PERFORMANCE INCENTIVES

The public health system continues relying largely on Soviet practices of remunerating health care workers using fixed salary scales, which are based primarily on length of experience. Salaries do not reflect the patient load or any service quality indicators linked to individual provider or facility performance. As a result, the current system does not provide monetary incentives for health workers to improve the quality, efficiency, or quantity of their work.

Budgets of individual health facilities have a line item for salaries, and managers do not have the flexibility to allocate savings from other budget areas (e.g., facility maintenance) to staff remuneration. Some exceptions exist: facility managers can raise the salaries of workers with hazardous or high volume working conditions and for surgeons, based on the quantity and complexity of their work. Such raises must fit within the salary fund provided by their line-item budgets, and are limited to certain percentage of base salary. Additional remuneration, which can reach up to 50 percent of base salary, is granted for increasing the amount of work by substituting for a missing worker (important in understaffed facilities) or increase in the catchment population served. Some cadres can receive bonuses for working long shifts, performing complex duties, excellent achievements, or being on-call at home. Those working in AIDS centers and TB dispensaries receive a bonus percentage pay increase due to the potentially

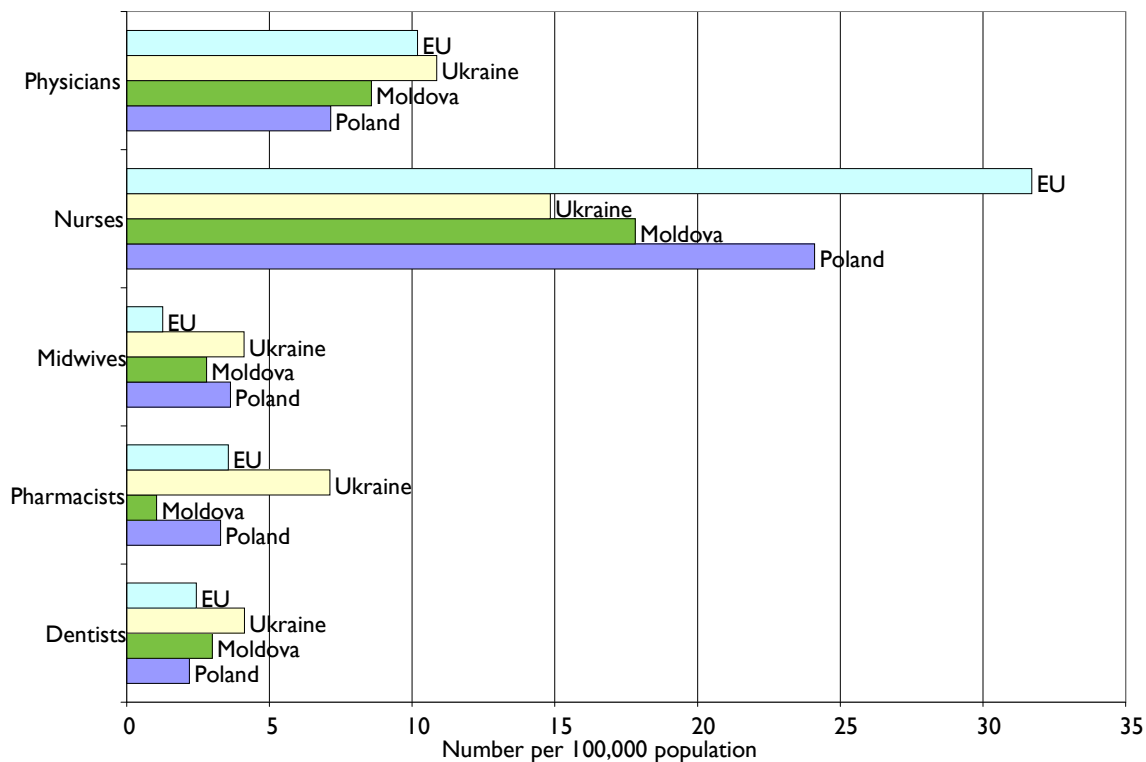
hazardous nature of working with infectious disease. Bonuses for achievements related to performance efficiency or quality are “extremely rare,” due to chronic lack of funding, and are typically not awarded in a transparent manner (Lekhan, Rudi, and Richardson, 2010).

Medical doctors for rural areas and PHC physicians receive salaries that are one category higher than for other specialist medical doctors. Health workers in emergency and outpatient care receive bonuses for continuity of service, which is a strategy to reduce turnover in these areas. These bonuses can be substantial: up to 60 percent of base salary for emergency care doctors, up to 40 percent for doctors in rural areas, and up to 30 percent for PHC doctors in cities (Lekhan, Rudi, and Richardson, 2010). Staff in infectious disease clinics are paid up to 15 percent more, and physicians in HIV/AIDS and TB treatment facilities receive a 60 percent salary top-up.

### 3.4.4 EDUCATION

Ukraine educates more physicians, midwives, dentists, and pharmacists relative to its population than the EU, Poland, or Moldova (Figure 3.4.2). However, the number of nurse graduates per 100,000 population in Ukraine is about half the number in the EU, and substantially less than in Poland or Moldova.

**FIGURE 3.4.2. NUMBER OF STUDENTS GRADUATED PER 100,000 POPULATION IN UKRAINE AND SELECTED OTHER COUNTRIES, 2008–2009\***



Source: WHO/Europe, European HFA-DB, January 2011.  
 \* Data for Ukraine and Moldova is for 2009. All other data are for 2008.

The number of new graduates remained largely unchanged in 2005–2010 for physicians. At the same time, the number of new graduate pharmacists more than doubled, and increased by 20 percent for dentists. The number of graduates in nursing, midwifery and feldsher programs fluctuated but increased by more than 20 percent in each of the last two years. The number of graduating laboratory specialists has been decreasing, with about 30 percent less graduating in 2010 compared with 2005.



According to data from the MOH, admittance to medical training institutions increased in 2005–2010, particularly for physicians (32 percent), pharmacists (24 percent), public health specialists (20 percent), and dentists (14 percent). Admissions for laboratory specialists increased by only 6 percent. The number of students admitted to nursing, midwifery, and feldsher programs increased by only 2 percent in this time period, although the decreasing trend in admissions for these cadres was reversed last year.

The number of students admitted for medical education is “based on the estimated needs of the population for different medical specialists and the state’s economic potential” and supervised by the MOH (Lekhan, Rudi, and Richardson, 2010). It is unclear to what extent this process involves a strategic review of population health needs (including regional-level analyses) to identify priority specialties for pre-service training and to provide additional incentives for students to choose these areas for their specialization.

About 40 percent of students in medical programs were fee paying, while the rest were funded by the state for their education. The proportion of fee paying students was similar for those in nursing, midwifery, and feldsher training, but considerably higher for students in dentistry (76 percent) and pharmacists (90 percent). Only 14 percent of students in laboratory specialty and 9 percent of those in public health programs paid for their education (MOH data). Tuition fees provide indispensable budget support to training institutions, which helps them retain staff and upgrade infrastructure and equipment. However, paying students are allowed to choose their specialty and tend to choose the most popular specializations (such as OB/GYN), which could skew the distribution of new graduates across specialty areas away from those that are priority for the health sector. Primary care (general practice) and family medicine are chosen by few students. These fields are considered to be less prestigious and less lucrative than narrow specialties. Only 152 new graduates became family doctors in 2010 (Slabkiy, 2011).

A new medical education system was developed by MOH to bring medical training in Ukraine in line with EU standards as set out in the Bologna Declaration,<sup>10</sup> which Ukraine signed in 2005. The measures to improve the educational system include:

- Development of new curricula that are better oriented towards evidence-based training,
- Introduction of credit-unit system,
- Upgrading the infrastructure of educational facilities, and
- Introducing new educational technology (including distance learning).

While some progress has already taken place in each of these areas, need for improvement remains in a few important areas such as strengthening the process for evidence-based revisions of curricula.

### 3.4.4.1 PRE-SERVICE EDUCATION

Higher medical education (training for medical doctors) is provided by 18 state medical universities and faculties, which are evenly distributed around the country in 16 regional centers and the capital of the Crimean Autonomous Republic. All of them have a department or institute of family medicine. In addition, there are four private institutions providing higher medical education, all licensed and accredited.

The state institutions are funded and supervised by the MOH and the Ministry of Education, and maintain accreditation and education licenses. The MOH and MOE develop and approve syllabuses and model curricula for medical education that individual institutions can change to a limited extent (not

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<sup>10</sup> The Bologna Declaration is a pledge by 29 European countries to reform the structures of their higher education systems in a convergent way (<http://ec.europa.eu/education/policies/educ/bologna/bologna.pdf>).

more than 15 percent of the total number of hours). Curricula revisions are conducted every five years by expert working groups, and are then approved by the MOH. Typically, about 30 percent of the contents are amended with new material. However, evidence-based medicine is not yet grounded in university curricula for medical education. One of the reasons is that there is no mechanism for timely modification of pre-service curricula to respond to updates of national clinical guidelines which often results in discrepancies between the norms and what is actually being taught to students.

An independent unit under the MOH, the Center for Testing Professional Skills of Health Workers, conducts standard integrated licensing examinations, using a written (computer-based) test on theory and practical examination. Medical facility administrators and agencies in charge of medical business licensing are responsible for ensuring compliance with educational and qualification requirements when issuing diplomas and licenses to medical professionals. A recently created unified state registry of doctors is maintained by the MOH Center for Medical Statistics.

Doctors are trained in medical school for six years and then specialize in a certain area through an internship, usually of about 18 months in duration. The number of internship places for each specialty is determined by the number of required specialists set by regional health authorities according to the available capacity in health facilities/specialized wards. Training of mid-level health staff (including nurses, feldshers, midwives, and technicians) is conducted by 244 vocational schools, evenly distributed among all regions; 10 are private (Ukrainian Institute for Strategic Research, 2010). After their basic training, mid-level staff develop further skills on the job.

Training of health cadres follows for the most part primarily teaching of clinical practices, although typically in an overly theoretical and didactic manner, with very little exposure of students to public health approaches. Most medical training institutions for health workers in Ukraine do not have clinical centers on-site and place students in health facilities in the area for practical training.

Nurses who obtain additional two-year advanced training to qualify to degree-level often work in positions similar to junior specialist nurses and thus their degree does not affect their salary. A recently introduced regulation reserves a senior hospital management position for degree-level nurses (deputy chief physician managing nursing staff), which is an important change to boost the recognition of nurses.

The MOH is planning to restructure the nurse training system to establish nursing as a separate profession, and allow nurses to do health promotion, disease prevention, patient care, and other tasks that are typically performed by doctors (Lekhan, Rudyi, and Richardson, 2010). While this is certainly a step in the right direction towards task-shifting in line with cost-efficient service-delivery models established in other countries, it is unclear to what extent progress in implementing these plans has occurred to date.

Health care managers are required to have a degree in medicine and a two-month specialization in health care organization and management, which is provided by post-graduate medical schools. Managers of private health facilities (including dentists opening their own practice) are required to have this management specialization as part of the licensing criteria. While this specialization covers key topics in health sector management, its short duration does not ensure an appropriate level of management training. Some medical students and health care managers thus choose to pursue a second degree in business management, law or economics.

The shortage of adequately trained managers is recognized by MOH and the government as one of the main obstacles to implementation of health care reforms; addressing this shortage is explicitly mentioned among the key strategies for development of the health sector (Lekhan and Rudyi, 2007). In response, an 18-month degree program in health care management, developed with EU technical assistance, was recently introduced in all three post-graduate medical education institutions. However, the combined training capacity of the institutions offering this program is still insufficient to meet needs: for example, the program at the National Medical Academy for Postgraduate Education in Kiev is

enrolling its first cohort of 15 students this fall. Plans to make the completion of this new degree a requirement for certain health care manager positions (e.g., hospitals, regional and district health administrations, etc.) will need to take into consideration this important constraint in training capacity. Potential short-term solutions could include: strategic prioritization of training eligibility,<sup>11</sup> exceptions from such requirements for those who already have a degree in management, and offering a large portion of the training as distance education.

#### 3.4.4.2 CONTINUING EDUCATION AND IN-SERVICE TRAINING

As part of continuing medical education, doctors should attend postgraduate training every five years. In-service training for doctors is provided by three institutions of higher education dedicated primarily to this type of training and fully funded by the state budget. Only students from institutions that are not under the MOH pay fees.

The in-service training of family doctors (i.e., training of specialist physicians in family medicine) is six months long. Some aspects of the training are considered to be insufficient for the intended role of family doctors, particularly the lack of emphasis on counseling skills, which are essential for their role in family planning service provision and also to ensure that patients (who are used to self-referral to secondary or tertiary facilities) have higher confidence that their treatment at the primary level is adequate. Family physicians in general work largely as referral administrators – in the words of one interviewed respondent, “this is not truly family medicine.”

Practicing physicians and mid-level medical workers are subject to regular attestation (at least every five years) that aims primarily at increasing their salary. The main criterion considered for appraisal is the length of professional record, and there are no clear appraisal criteria that include quality of performance (Lekhan, Rudi, and Richardson, 2010). Thus, the current attestation system does not serve as a quality assurance mechanism, or a mechanism to encourage performance improvement among medical professionals.

The MOH recently introduced a points-based system for continuous professional medical education for doctors, which is expected to improve professional improvement.<sup>12</sup> This system has not yet been extended to other cadres.

#### 3.4.5 PARTNERSHIPS FOR HUMAN RESOURCE DEVELOPMENT

The nursing and medical associations organize seminars on topics of interest to their members, and their collaboration with the MOH includes giving their input into revision of training curricula, advocacy and collaboration with MOH on initiatives to boost the morale among nurses and raise the prestige of the nursing profession, and input to the discussion on health reforms.

Training of workers and managers are conducted by a number of donor organizations. WHO supports capacity building for strategic planning. USAID-supported projects currently provide in-service training on TB for providers in high prevalence regions and training for family doctors in family planning. In addition, these projects supported the development of a family planning curriculum for family doctors

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<sup>11</sup> The Kiev Medical Academy, for example, is giving priority to managers from the three regions where the government is planning to pilot the health care reform program that relies heavily for its success on strong management skills at the regional, district, and facility level.

<sup>12</sup> Under this system, doctors collect qualifying points for a variety of professional improvement activities (such as participation in qualifying seminars and conferences, publications in medical journals, and in-service training courses). The accrued points are considered towards eligibility for re-certification every five years.

(recently approved by MOH) and revision of the TB curricula for PHC physicians at the Kiev Medical University.

The CDC is supporting a strengthening of the National HIV Reference Laboratory and the underlying network. The CDC will work to improve technical knowledge and management capacity and collaborate with the National Medical Academy for Postgraduate Education in Kiev on improving pre-service lab training. The Development Fund of Ukraine – recipient of the recently approved Global Fund TB grant – is supporting capacity building of the National TB Center. The Fund is also supporting training and education of regional health care managers and staff at TB centers at the regional level and below to improve TB case detection and case management.

### 3.4.6 HUMAN RESOURCES: HIV/AIDS

The lack of strategic planning process of human resources allocation at the central level of MOH, and the normative-based allocation of human resources affects the efficient delivery of family planning, TB, and HIV/AIDS service delivery and appropriate allocation of health cadres.

The lack of a national model and strategic plan for service delivery of HIV/AIDS services makes it impossible to project human resources needs (Elo et al., 2009). While official guidance on human resources planning for HIV/AIDS care stipulates that planning should be based on actual need determined by the epidemiological situation rather than on population size alone, this guidance is at odds with the current health facility financing system that allocates fixed line-item budgets that do not allow facility managers flexibility in staffing expenditure (USAID (b), 2010).

Among the priority interventions in the National AIDS Plan is the training of specialists in treatment, prevention, and social support for HIV/AIDS patients and vulnerable groups (National Council to Fight TB and HIV/AIDS, 2010). However, an important criticism of the plan voiced by several assessments is that it assigns responsibility for the majority of activities to multiple parties, which means it is unclear who is accountable for implementation of specific activities (USAID (b), 2010).

The deficiency of the human resources allocation process described above affects patient loads for TB and HIV/AIDS service providers. There are significant differences across regions in patient loads per health worker for TB and HIV/AIDS services: in some areas, infectious disease physicians are overburdened, while nurses, social workers, and laboratory physicians are underutilized. Unfilled staff vacancies for infectious disease specialists (particularly for TB) are typically the first problem that draws the attention in such situations. However, there are two equally important issues that should be considered. One is a review of the treatment and observation protocols to ensure that they reflect best international practices (particularly in the balance of inpatient versus outpatient treatment duration for TB). The second is consideration of task-shifting of some elements of patient care – both for TB and HIV/AIDS – from specialist physicians to lower-level staff and to PHC. Integration of TB and HIV/AIDS service in PHC, and reorientation of providing such services in outpatient setting will not only alleviate the burden on infectious disease specialists; it will also increase access to services, improve the cost-efficiency of TB and HIV/AIDS service provision, and allow for reallocation of resources towards the development of PHC in a way that does not compromise the control of TB and HIV/AIDS.

HIV/AIDS is only partly institutionalized within in-service medical education. Only the National HIV/AIDS Training Center provides such training – this enables national certification and accounting of trained providers but the capacity of the center is not sufficient to meet the needs of HIV service provision decentralized to subregional levels.

Providers in the AIDS centers have received, by and large, adequate in-service training and mentoring on HIV service provision. However, this is not the case with family doctors and other PHC workers – unlike in EU countries, HIV prevention, treatment, care, and support has not been mainstreamed in family medicine in Ukraine, and pre-service training in HIV/AIDS is largely considered to be inadequate

(USAID (b), 2010). Training of social workers at NGOs and at the AIDS centers is supported by different donor organizations using different curriculums that do not allow for uniform certification of those who are trained; monitoring of training results is limited to individual post-training evaluations of knowledge and skills (Elo et al., 2009). In addition, the scarcity of specialists with training in epidemiology, biostatistics, and M&E has been identified by several assessments as an impediment for the HIV/AIDS response.

### **3.4.7 HUMAN RESOURCES: TB**

Besides the issues with adequate staffing for TB services, described above, there are several additional challenges faced by the National TB Program.

The system-wide lack of strategic planning processes affects the TB program as well, resulting in program plans with unrealistic goals, and activities that are not sufficiently aligned with goals.

The pre-service training curriculum on TB for medical students (before specialization) is considered outdated, lacking an adequate case-management component (how to detect, diagnose, confirm, and organize and follow treatment) and not corresponding to the role of PHC physicians in TB detection and treatment. A revision of this curriculum to address these issues, particularly the modules for family doctors training, is essential to support an effective integration of TB service into PHC. Including training on DOTS and the approach of the Stop TB Strategy should be a priority for nationally approved curricula revisions. International organizations and NGOs working in the area of TB have developed and provided training in DOTS pilot regions, and have been successful in including it in the curricula at individual universities, but have not been able to incorporate the DOTS approach into the national curricula.

There have been some positive recent developments to address the human resources issues in TB service. Recognizing the challenges that the National TB Program is facing as a result of the shortages of TB doctors, the MOH established a Human Resources Working Group in February 2010 to look specifically at the human resource development problems of the TB services.

### **3.4.8 HUMAN RESOURCES: FAMILY PLANNING**

The lack of counseling skills among PHC physicians, as well as nurses and lower-level health workers is one of the key constraints to reproductive health service provision. The training curriculum on family planning for family doctors was recently revised to incorporate evidence-based elements. The revision was supported by USAID and the new curriculum was approved at national level. USAID's in-country project on reproductive health (Together for Health) has institutionalized and supported in-service family planning training for a large share of family doctors in the project's focus regions. One challenge to expanding quality family planning service provision through the PHC sector in Ukraine is the slow progress in increasing the number of family doctors nationwide.

The chapter on family planning of the National Program for Reproductive Health 2007–2015 includes optimization of training plans and curricula for post-graduate education on family planning for OB/GYN physicians, family doctors, general practitioners, and mid-level medical staff. However, the financing for these training activities is planned to come primarily from local budgets, which means that they might end up being substantially underfunded and not reach scale.

### 3.4.9 SWOT ANALYSIS

**Table 3.4.2. SWOT Analysis for Human Resources**

<b>Equity, Access, Efficiency, Quality, and Sustainability</b>		
Strengths and Opportunities	General Health Services	<ul style="list-style-type: none"> <li>The total number of health workers in key cadres is adequate</li> <li>There is an established network of health educational institutions with adequate training capacity to maintain current number of graduates</li> <li>Ongoing reforms in pre- and in-service education bring Ukraine closer to European standards for educating health sector cadres</li> <li>Human resources constraints to health reform are recognized by political leaders</li> <li>Capacity for analytic and research support for reproductive health decision-making</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>Health workers in AIDS centers have adequate in-service training and mentoring on HIV service provision</li> <li>Training of specialists is a priority in the National AIDS Plan</li> </ul>
	TB	<ul style="list-style-type: none"> <li>The Human Resources Working Group was established to look specifically at human resource development problems for TB services</li> <li>Global Fund grant supports capacity building of the National TB Center, and training for TB service providers and regional health care managers</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>National training curriculum on family planning for family doctors was recently revised to incorporate evidence-based elements</li> <li>A large share of family doctors was trained in family planning in USAID project regions (about 25% of total family doctors nationwide)</li> </ul>
Weaknesses and Threats	General Health Services	<ul style="list-style-type: none"> <li>A strategic national plan for human resources development is needed</li> <li>Planning and allocation in the public health system does not align size and skills of staff with population health needs or efficient human resources use</li> <li>There is a critical shortage of family doctors and trained health care managers</li> <li>Low salaries for health workers lead to widespread under-the-table payments by patients, and low prestige of the health professions</li> <li>Need for strengthening the revision process of training curricula to ensure timely addition of evidence-based practices</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>Lack of a national strategic plan for service delivery of HIV/AIDS makes it impossible to project accurately HR needs</li> <li>Delineation of responsibilities for training activities assigned by National AIDS Plan is unclear</li> <li>HIV/AIDS is only partly institutionalized in in-service medical education</li> <li>Capacity of National HIV/AIDS Training Center is not sufficient to decentralize service delivery to subregional levels</li> <li>Family doctors are inadequately trained in HIV/AIDS detection/treatment</li> </ul>
	TB	<ul style="list-style-type: none"> <li>Lack of strategic planning processes and inadequate skills for evidence-based planning translates into program plans with unrealistic goals and activities not aligned with goals</li> <li>Vacancy rates for TB specialists are high</li> <li>Pre-service training curriculum on TB for medical students is outdated (no adequate case-management component and training on DOTS)</li> <li>Training for family doctors in TB detection and treatment is inadequate</li> </ul>

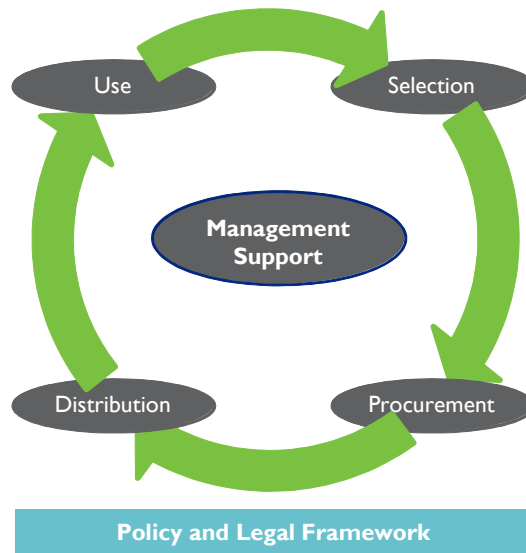
**Equity, Access, Efficiency, Quality, and Sustainability**

Family Planning	<ul style="list-style-type: none"> <li>• There is a lack of counseling skills among PHC physicians and nurses</li> <li>• Expanding family planning service provision through PHC is constrained by the slow progress in increasing the number of family doctors</li> <li>• Funding for family planning training activities in the National Program for Reproductive Health 2007–2015 is primarily from local budgets, which may result in their underfunding and not reaching scale</li> <li>• Pre- and in-service training for family doctors in family planning is inadequate</li> </ul>
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### 3.5 MEDICAL PRODUCT MANAGEMENT

Effective management of pharmaceuticals, vaccines, and medical products and technologies is an important part of a high-quality health system. Management activities are related to the selection, procurement, distribution, and use of products that flow through the supply system. See the management framework in Figure 3.5.1. Each component of the framework depends on the success of the previous component and contributes to the viability of the next. This section assesses the management of pharmaceuticals and medical supplies in Ukraine, using this framework as a guide, and using the performance criteria of access, quality, equity, efficiency, and the sustainability of the health system to judge impact.

**FIGURE 3.5.1. COMPONENTS OF THE MANAGING MEDICAL PRODUCTS, VACCINES AND TECHNOLOGIES FRAMEWORK**



Source: Management Sciences for Health

#### 3.5.1 OVERVIEW

While the regulatory systems that dictate the procurement, distribution, and use of pharmaceuticals and other medical supplies in Ukraine are generally well developed, they are not always observed in practice. The severe HIV/AIDS and TB epidemics, with their large and complex array of drugs for prevention, diagnosis and treatment, combined with their high visibility due to highly active and committed NGO watchdog groups, have highlighted inadequacies in Ukraine’s pharmaceutical management systems. Major

issues include irregularities in procurement practices, problems in the supply chain, and the high cost of drugs that patients must pay out of pocket. This section will discuss these deficiencies.

A recent (2008) evaluation of the PSM system in Ukraine concluded that “existing systems do not meet current internationally-recognized standards for drug regulation, selection, procurement, or supply chain management” (WHO, Regional Office for Europe et al., 2008). While the evaluation was undertaken to look specifically at HIV/AIDS drugs, it also identified the following cross-cutting problems that likely affect all public sector pharmaceutical supplies:

- Little sustained commitment to reforming current processes and insufficient follow-up to earlier recommendations to strengthen systems.
- Lack of clear separation of responsibilities across different PSM functions to ensure equitable, broad-based decision-making and avoid disproportionate influence or conflict of interest.
- Human resource capacity constraints.
- Overlapping mandates and functions among key structures and departments involved in PSM, resulting in fragmentation and inefficiency in regulatory and other processes.
- A lack of transparency; standardization; internationally accepted approaches to PSM; and consistent availability and appropriate use of medicines of assured quality at a reasonable cost.

In interviews with key stakeholders during this HSA, assessment team members found that, as with earlier evaluations, little had been done to adopt these 2008 recommendations.

In Soviet times, Ukraine was a leading drug manufacturer. While currently Ukraine does not produce the majority of the pharmaceuticals it needs, production is increasing. In 2010, Ukraine’s export of pharmaceuticals it produced increased 40 percent and domestic use of pharmaceuticals produced in Ukraine increased 30-40 percent over the previous year (Stetsiv V, personal communication).

### 3.5.2 ORGANIZATION

A number of agencies constitute the National Drug Regulatory Authority and the 2008 WHO evaluation found them to be relatively uncoordinated (WHO, Regional Office for Europe et al., 2008). A later (2010) WHO TB evaluation found no improvement in this regard and in addition, “key regulatory functions (marketing authorization; licensing of manufacturers, wholesalers and pharmacies; pharmacovigilance; import and market control; control of advertising and promotion, and clinical trials) are carried out by a number of separate agencies” (WHO, Regional Office for Europe (b), 2011).

More information on legal and regulatory issues is provided in Section 3.1. Governance and Leadership.

### 3.5.3 ESSENTIAL DRUGS

In 2006, the GOU approved a list of essential pharmaceuticals and medical devices (Cabinet of Ministers decree 400, issued 29 March 2006). The list includes 783 drugs that are deemed “efficient, financially-attainable, and safe” and that are used in Ukraine in the prevention, diagnosis, and treatment of common diseases. This list forms the basis for the medical entitlement package and information on:

- Arranging tender procurement for state purchases to support targeted programs;
- State support of the domestic pharmaceutical industry;
- Plans for benefits and costs recovery;
- The creation of clinical protocols and forms; and
- The monitoring of pharmaceutical supplies and price formation.



## 3.5.4 PROCUREMENT AND SUPPLY CHAIN ISSUES

### 3.5.4.1 PROCUREMENT

Health care facilities and agencies struggle with the existing system of centralized purchasing (from the public budget) because drugs are purchased and distributed without taking into account regional demand regarding type and volume of drugs needed. At the oblast level, health authorities purchase some select pharmaceuticals from producers for distribution in oblast and rayon hospitals, polyclinics, etc.

The major problem related to procurement exists at the national level, where the budget is used to do central purchasing of large quantities of pharmaceuticals (and medical products) for about 20 vertical health programs including HIV/AIDS, TB, oncology, and diabetes that in theory are provided free to the population. According to Ukrainian law, the state cannot purchase these pharmaceuticals directly from pharmaceutical manufacturers, but rather must follow a tender process that requires utilizing special “mediators” or “distributors.” The tender process results in:

- High prices of government-procured drugs in comparison to international averages;
- Selection of a package of drugs that does not necessarily respond to population needs;
- A number of reputable international pharmaceutical companies choose not to bid; and
- Delays in pharmaceuticals entering the supply chain.

These irregularities are most apparent to the public in the area of ARV drugs. About 10 percent of ARVs are purchased by Ukrainian NGOs with funds from the Global Fund, and about 90 percent of ARVs are purchased by the state. The wide disparity between the price of these differently procured drugs have been the subject of serious tension and discussion for several years, and were the catalyst for several external donor-funded evaluations, such as those mentioned above (WHO, Regional Office for Europe et al, 2008; UNAIDS, 2009). Price disparities have decreased in recent years, but they were still dramatic in 2010, when up to US\$2 million could have been saved with improved state procurement, as shown in Table 3.2.5 in Section 3.2 Health Financing.

According to some reports, these MOH procurement practices have resulted in a number of:

- ART-eligible patients not able to start ART;
- Patients on ART having supplies interrupted, causing morbidity, mortality, and drug resistance;
- Patients on ART having their drugs changed, causing side effects and lessened efficacy; and
- Oblast AIDS centers lacking credibility.

Private sector procurement is handled independently of the public system. Private pharmacies procure pharmaceuticals directly from suppliers. Private laboratory companies purchase reagents, primarily from import suppliers. These private sector purchasers reported to the assessment team that the customs service poses a problem to timely receipt of quality products – customs agents’ lack understanding of regulations and their delays in processing mean that the products often arrive on the market close to the product expiration date, thus limiting use and value. Procurement of medical equipment also is cumbersome: unlike in countries where the government supports private health care provision, Ukraine provides no tax incentives for private providers to import updated equipment.

### 3.5.4.2 SUPPLY CHAIN ISSUES

The GOU does no systematic data collection on pharmaceutical supplies, leading to drug stock-outs and the need to physically move pharmaceuticals from one oblast to another, which requires a special *prikaz* (order). USAID-supported technical assistance in supply chain management has improved the supply

availability situation somewhat. Yet, staff dealing with pharmaceuticals and medical supplies are still not adequately trained in how to quantify and forecast drug supplies.

### 3.5.5 QUALITY AND SAFETY

Pharmacovigilance is the responsibility of the State Expert Centre, which collects information on adverse effects from a network of oblast reports. Progress has been made in moving toward integration with international standards for drug regulation, according to WHO's 2010 TB assessment (WHO, Regional Office for Europe (b), 2011). In January 2011, Ukraine was invited to join the international Pharmaceutical Inspection Cooperation Scheme that promotes good manufacturing practice and other quality assurance practices, a signal that the country employs relatively strict quality controls for drugs. The quality assurance of domestically produced medicines is somewhat compromised by the fact that there is no manufacturer's inspection to ensure that good manufacturing practice is in place before a manufacturing license or marketing authorization for a medicinal product is granted (WHO, Regional Office for Europe (b), 2011).

### 3.5.6 ACCESS

Access to pharmaceuticals and medical products is typically dependent upon four major factors: rational use, affordable prices, sustainable financing and reliable health and supply systems (WHO (b), 2004).

#### Source of medicines

All pharmaceuticals produced in Ukraine are generic, and all pharmaceutical manufacturers in Ukraine are private. Drugs manufactured in Ukraine are exported to other (primarily post-Soviet) countries, but are not used extensively within Ukraine with the notable exception of some government-procured drugs and reagents.

Patients in Ukraine access retail pharmaceuticals from three principal sources, as shown in Table 3.5.1.

**TABLE 3.5.1. SOURCES OF RETAIL PHARMACEUTICALS IN UKRAINE, 2010**

Pharmaceutical Establishments	Number	Mandate
Pharmacies (private, free-standing facilities)	12,061	Permitted to sell medicines and any devices related to health care
Pharmacy kiosks (private street stalls)	4425	Permitted to sell only nonprescription medicines
Pharmacy punkts (pharmacy units operating within health facilities)	5,223	Permitted to sell prescription and nonprescription medicines*
<b>TOTAL</b>	<b>21,736</b>	

Source: Pharmastandard, 2011.

The number of pharmacies has increased in recent years, and the number of pharmacy kiosks has decreased. The ratio of population to pharmacy seems to be adequate to meet the needs of the population (Goskomstat, 2010).

Most pharmaceuticals (with the exception of narcotic-related pharmaceuticals) are available over the counter without a physician's prescription. Officially there is a list of prescription and nonprescription medicines and patients are required to show the prescription in the pharmacy in order to receive prescribed medicines. However, this system is loosely enforced. This ease of access leads to significant self-prescribing, reliance on the advice of pharmacists, and over-use of antibiotics.

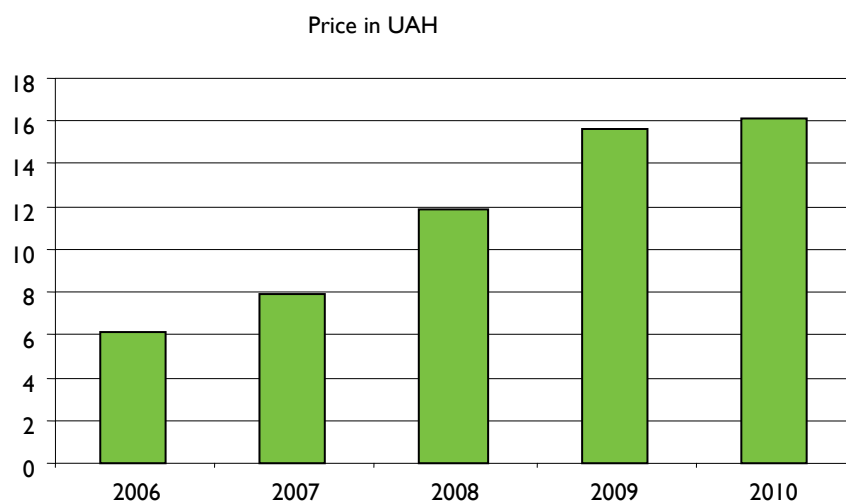
#### Cost and affordability

Patients in Ukraine must pay for their own pharmaceuticals in outpatient care, and these costs can be exceedingly high. In principle, some special groups are exempt from paying full price for pharmaceuticals;

these include the indigent, Afghanistan war veterans, victims of the Chernobyl disaster, and those who are severely handicapped. Also exempt, as mentioned above, are patients suffering from “socially significant” and very serious diseases such as HIV/AIDS, TB, and cancer and those receiving other drugs delivered through centrally funded, vertical programs.

Out-of-pocket costs for medical care are high in Ukraine, especially for persons suffering more than one chronic disease. Pharmaceuticals constitute up to 85 percent of total medical costs, as per a recent World Bank Survey (World Bank (c), 2010). In addition, the cost of pharmaceuticals has increased dramatically from 2006 to 2010, as illustrated in Figure 3.5.3.

**FIGURE 3.5.3. RATE OF RETAIL PRICE INCREASE OF THE PHARMACY MARKET BASKET IN UKRAINE, 2006–2010**



Source: Pharmastandard, Data from the State Service on the Control of Quality, Safety and Production of Medicines and Medical Devices, 2011.

Reasons for these continual price increases include unfavorable exchange rates, inflation, substitution of cheaper drugs with more expensive drugs in the same group by purchasers, and the emergence of new (expensive) drugs. While generic drugs should prove less costly, there is little if any government effort to promote the use of less expensive generic drugs for use in government facilities (Lekhan, Rudi, and Richardson, 2010). Over-prescription, especially of expensive, brand-name pharmaceuticals, is common, because of government kickbacks (Lekhan, Rudi, and Richardson, 2010).

A recent study by WHO/ Health Action International (HAI) concluded that there is a clear need to improve policies on medicine pricing and availability (WHO/ HAI).

### 3.5.7 HIV/AIDS DRUGS

The health system’s response to HIV/AIDS and TB requires extremely large quantities of pharmaceuticals and laboratory supplies for longer-term use than for most other diseases. As such, suppliers have a strong economic interest in drug- and laboratory-related aspects of the HIV/AIDS and TB policy including prevention, testing, treatment, and care.

The GOU provides most ARV drugs in the country. ARVs are also provided by the All-Ukrainian Network of People Living with HIV/AIDS with financial support from the Global Fund. The network provides ARVs to over 3,700 people, and is the only source of the drugs for treatment-eligible prisoners. The network estimates that only about 30 percent of people in need of treatment are receiving it. GOU figures show that ART coverage was 48 percent in 2009, up from 27 percent in 2006,

35 percent in 2007, and 40 percent in 2008. ART coverage for children was 90 percent in 2008, and 100 percent in 2009 (Aleksandrin et al., 2010). Experts interviewed by the assessment team reported recent special shortages in pediatric formulations of ARVs (thus children do without or have adapted adult formulations) and anecdotal evidence supports this. It is possible that the need for pediatric formulations of ARVs is too small to attract bids from pharmaceutical companies or distributors.

Shortages in ARVs and changes in types of drugs procured because of supply chain problems have interrupted the continuity of treatment, leading to increased morbidity and mortality from AIDS-related causes. WHO prequalification for ARV drugs purchased by the government is not mandatory, so the quality of those drugs is unknown.

The laboratory testing market is dominated by a small number of local producers, and foreign pharmaceutical manufacturers, primarily Indian, supply ARVs exclusively. Transnational companies also have considerable business interests in Ukraine (Semegina et al 2007).

A recent HIV/AIDS policy assessment, supported by USAID, included in its mandate an examination of HIV/AIDS supply chain issues. When that report is available, it should further illuminate this issue.

### 3.5.8 TUBERCULOSIS DRUGS

TB drugs are procured by the government centrally and warehoused at the central level, distributed to oblasts by a public distribution agency, and then moved to feldshers, TB “cabinets,” rayon-level health facilities, and other sites.

A 2010 evaluation of the Ukraine TB program (WHO, Regional Office for Europe (b), 2011) offered the following observations on the status of TB drugs:

- Current program reports focus on financial information rather than measuring and improving program performance, including pharmaceutical management;
- Erratic availability of locally purchased anti-TB drugs;
- Limited stocks of second-line medicines ;
- New challenges related to drugs to treat MDR-TB and XDR-TB;
- No major stock-out problems with first-line drugs in nonpenal facilities;
- Variable availability of TB drugs in the penal sector; and
- The supply chain (including storage) at oblast level and below is poor.
- Shortages in TB drugs have resulted in unsatisfactory treatment outcomes and an increase in MDR-TB.

Some of these problems will be addressed by the e-TB Manager program, a web-based system that provides comprehensive information about patient case management, including pharmaceutical management information (WHO, Regional Office for Europe (b), 2011). The e-TB Manager program was adapted for Ukraine by Management Sciences for Health and should be adopted across Ukraine in 2011.

Although the Global Fund Round 9 grant will provide some second-line TB drugs from 2013 onward through the Green Light Committee, a substantial funding gap is expected to remain every year.

### 3.5.9 CONTRACEPTIVES

The availability of contraceptives in Ukraine presents a mixed picture. In 15 USAID-supported oblasts, 85 percent of contraceptives are contributed by USAID, and 15 percent are provided by the GOU. The

amount of contraceptives sold in the private sector has not increased recently, presumably due to the high cost of contraceptive commodities.

The public sector (national and local governments) did not procure contraceptives to be distributed free to vulnerable populations until 2007. By 2009, 6.36 million condoms, donated by USAID, were distributed to health facilities and were intended for use by disadvantaged population groups including women with extra-genital pathologies, youth aged 18–22, women with high-risk pregnancies, women and couples living with HIV, and women from low-income families, as mandated by the State Program Reproductive Health of the Nation. However, the recent economic situation in Ukraine has constrained efforts to mobilize government funding for FP/RH, especially as FP/RH has to compete with other pressing health problems such as immunization, TB, HIV/AIDS, and cancer (JSI 2009).

The USAID-funded Together for Health project works toward improving the availability, accessibility, and affordability of contraceptives for poor and vulnerable populations through the public sector in selected oblasts, and toward broadening the contraceptive method mix, which has been overly dependent upon condoms and intrauterine devices (IUDs) (JSI 2009). A number of factors constrain USAID's ability to import contraceptives into Ukraine including bureaucratic requirements for drug imports and humanitarian donations; the GOU's reluctance to accept donated drugs; cumbersome documents needed to secure various approvals, accreditations, and import certificates from different government authorities; and customs requirements (JSI 2010).

The availability of free contraceptives in USAID-assisted health facilities in five oblasts improved considerably from 31.2 percent having any method available in 2007 to 85.5 percent in 2009. At the same time, the percentage of pharmacies that carry combined oral contraceptives, condoms, emergency contraception, and IUDs declined. Only injectable contraceptives and progestin-only contraceptives increased over the same period (JSI 2010). Clearly, price is a constraint. For example, the average price for the least expensive oral contraceptive, *Regevidon*, increased four-fold from 2006 to 2009. Generics, which are lower cost, do not have significant uptake in Ukraine due to consumer bias (JSI, 2010).

CYP is a measure of the estimated protection provided by various contraceptives, and is a good representation of the volume of contraceptives sold or distributed free of charge (USAID 2009). While CYP from free contraceptives had increased in 2008 and 2009 in USAID-assisted oblasts, total CYP fell in 2010, possibly due to the difficult economic climate in Ukraine and sharp increases in contraceptive prices. Nevertheless, the USAID-funded project's successes in broadening the contraceptive method mix to include injectables and progestin-only pills are encouraging.

A USAID-funded contraceptive security assessment, which was initiated prior to this HSA but not available to this team, should provide greater clarity on the issue of contraceptive availability in Ukraine.

### 3.5.10 SWOT ANALYSIS

**TABLE 3.5.2. SWOT ANALYSIS FOR MEDICAL PRODUCTS**

<b>Equity, Access, Efficiency, Quality and Sustainability</b>		
Strengths and Opportunities	General Health Services	<ul style="list-style-type: none"> <li>The system for production, import, export, regulation and quality control is well developed</li> <li>Ukraine is working toward a drug quality assurance standard that follows EU standards</li> <li>Several additional decrees and laws concerning regulation of the quality of pharmaceuticals have been added in 2009 and 2010</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>GOU assumes responsibility for funding vast majority of ART drugs for Ukraine</li> <li>Global Fund funding has improved access of vulnerable groups to ART</li> </ul>
	TB	<ul style="list-style-type: none"> <li>First-line drugs generally available, with no major stock-out problems in nonpenal facilities</li> <li>Efforts (such as the e-TB record keeping system) are underway to improve the efficiency of TB drug supply, forecasting and distribution</li> <li>Global Fund provides second-line drugs (from 2013)</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>Contraceptive supply is generally adequate in oblasts that USAID supports</li> <li>Special groups (HIV+ women, the poor, etc.) are eligible for free contraception</li> </ul>
Weaknesses and Threats	General Health Services	<ul style="list-style-type: none"> <li>Tender practices often result in high prices of pharmaceuticals</li> <li>Lack of government subsidy or co-payment for most drugs results in high out-of-pocket costs for patients and impedes access</li> <li>Supply chain management for public sector drugs is inadequate</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>Price of government-provided ART is high</li> <li>Supply disruptions are severe</li> <li>Selection of ARV drugs is not consistent or always responsive to the needs of PLWH</li> <li>GOU has not acted upon detailed recommendations on PSM made by external experts</li> <li>Forecasting of ART is poor, causing stock-outs and need to move ARVs between oblasts to address shortages</li> </ul>
	TB	<ul style="list-style-type: none"> <li>Stocks of second-line medicines are limited</li> <li>New challenges relate to drugs to treat MDR-TB and XDR-TB</li> <li>Availability of TB drugs in the penal sector varies</li> <li>The supply chain (including storage) at oblast level and below is poor</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>CYP declined significantly in 2010, suggesting affordability of contraceptives is a problem</li> </ul>

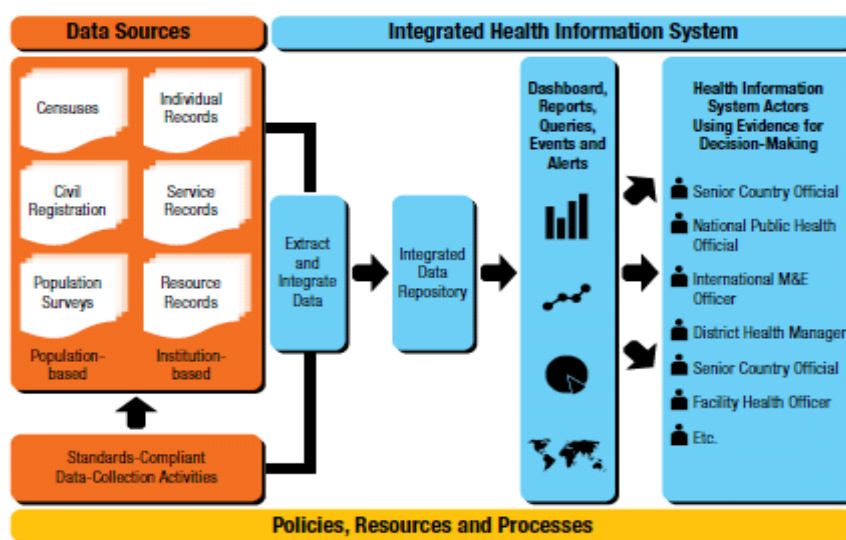
## 3.6 HEALTH INFORMATION SYSTEMS

An HIS is defined as a set of components and procedures that generate information for health care management decisions at all levels of the health system. The key components of a national HIS include:

- **Processes** for data collection, management, and analysis
- **Resources** (human, technical, and financial) for generating and using health information
- Outputs including dissemination and use of health information

An overview of these components and the flow and use of information from data sources into an integrated HIS is presented in Figure 3.6.1.

**FIGURE 3.6.1. HEALTH INFORMATION SYSTEM**



Source: Health Metrics Network.

The following sections explore these three components of the HIS in Ukraine. This rapid assessment provides an overall description of the HIS and discusses broad system-wide issues, with particular focus on issues that affect or are influenced by the remaining health system building blocks.

### 3.6.1 PROCESSES FOR DATA COLLECTION, MANAGEMENT, AND ANALYSIS

Sources of health data in Ukraine include routine data reporting systems (such as statistical and program reporting through the health system structures and vital registration records) and population-based surveys (such as the census, and household or patient surveys). The routine HIS managed by the MOH is the predominant source of data on the health sector in Ukraine.

#### Routine health information system

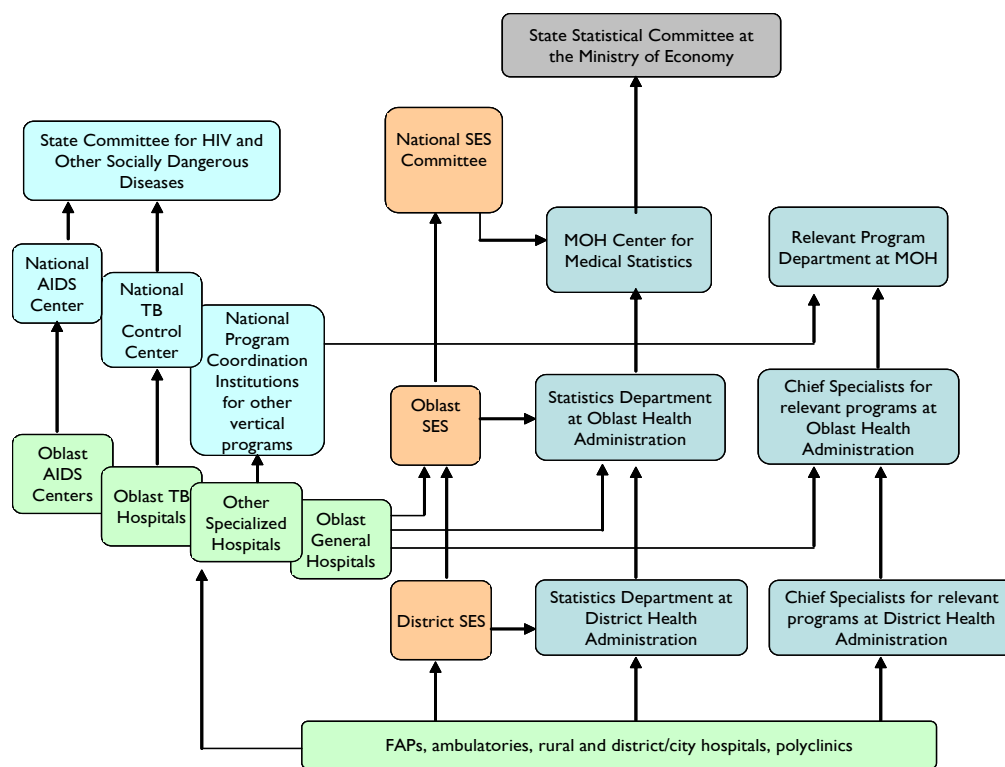
Routine health sector data collection and reporting is conducted through a number of parallel reporting systems, including:

- The statistical reporting system of the state administration
- The sanitary-epidemiological services (SES)

- Vertical health programs overseen by national coordination centers<sup>13</sup>

The health information reporting flows are shown in Figure 3.6.2.

**FIGURE 3.6.2. ROUTINE HEALTH INFORMATION SYSTEM**



Note: FAP=Feldsher post

The health sector data from the statistical reporting system of the state administration is managed by the Center for Medical Statistics (CMS), a department of the MOH. It includes data on population health indicators, medical services, and inputs (such as inventory of health system personnel, medical facilities, and service provision). The CMS is required to submit all data and analyses to the State Statistical Committee. While the CMS produces some interim reports, the main responsibility for formally publishing health statistics lies with the State Statistical Committee, which is under the Ministry of the Economy. The SES and vertical program coordination systems collect data on some of the same indicators that are tracked by the health statistics system.

Each system has a hierarchy of data reporting units – from individual facilities to district, regional and national level – that use standardized MOH-approved forms and registers to collect, compile, and report data on a regular basis. The statistics departments at district and regional health administrations collect data from all health facilities and SES units in their administrative territory. Statistics departments at the district health administrations submit data reports to their counterparts at the regional level, which report to the CMS. Private health facilities report into the same system; they are required by law to submit the same statistical reporting forms that public health facilities use. Health care facilities that are under the jurisdiction of other ministries (e.g., the penitentiary health care system, military hospitals)

<sup>13</sup> The national program coordination/control centers are based at specialized tertiary/national facilities or institutes appointed by the MOH to coordinate the implementation and M&E of specific national programs (e.g., the National TB Control Center is at the Institute for Phtysiatry and Pulmonology of the National Academy of Medical Sciences).



provide information to district and oblast health administrations through the reporting channels used by all other health facilities.

In addition to the flow of data for statistics purposes, there are two chains of reporting for programming and monitoring purposes. The first of these is illustrated on the right side of Figure 3.6.2. Health facilities submit individual reports with data and activity updates on specific health services (such as MCH, TB, blood safety, and medical services development) to the relevant Chief Specialists in the district health administrations.<sup>14</sup> Similarly, oblast-level facilities and district Chief Specialists submit such reports to the relevant Chief Specialists at the oblast health administration. An oblast health administration has about 25 such specialists. Program reports from the oblast Chief Specialists are submitted to the relevant MOH program department. In addition to the routine/scheduled reports that the MOH receives from the regional health administration units, the ministry requests additional reports on specific topics on an ad hoc basis.

The second chain of reporting for programming and monitoring purposes is illustrated on the left side of Figure 3.6.2. The national coordination/control centers appointed to monitor the performance and set direction for vertical programs receive program reports from specialized regional health facilities.

The use of program reporting information for effective decision-making and planning at various levels varies, depending largely on the skills of the managers involved in the process. Overall, the capacity of managers for evidence-based strategic planning – from the facility to higher levels – is considered to be insufficient and has been identified as one of the priority areas that need to be addressed in light of planned health reforms (see Section 3.4, Human Resources). It is also unclear to what extent the fragmented HIS provides reliable operational data for health care managers that they can effectively use for analysis and management purposes.

### **Data quality**

While facility reports are produced and submitted through the routine system on a regular basis according to official reporting schedules, inaccuracy of the data for some types of indicators is an issue. Such data quality issues can be the result of insufficient health worker training on data recording or compiling. This is the case, for example, with use of some recently introduced TB forms at the facility or rayon level (De Colombani and Veen, 2011). In many cases, however, inaccurate reporting is attributable not to lack of capacity (e.g., not knowing how to fill the forms), but rather to disincentives to report accurately.

Disincentives for accurate reporting are generally linked to one of two elements of the health system. The first is the expectation of negative consequences for having and showing poor results, in contrast to the expectation of receiving supportive supervision or additional resources to address the problems causing such results. This can be described as a sharp skew of the traditional “carrot-and-stick” performance incentive system towards the “stick” side. For example, issues with reports of immunization coverage (which has reached critically low levels for some antigens) could be a consequence of this system-induced disincentive problem. The second disincentive for accurate reporting (particularly at hospital level) is the direct link between some indicators and facility staff and budget allocation. For example, one indicator that is widely considered to be consistently over-reported is the bed occupancy rate, which is a key determinant of each facility’s budget and number of staff positions. In such cases, it appears that the gap in data quality control from higher up the reporting system is not so much due to capacity/resource constraints, but rather to a culture of accepting the problem to avoid dealing with related consequences (such as potential layoffs in an underutilized facility).

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<sup>14</sup> The Chief Specialists are in charge of overseeing service delivery, including coordination of working groups to guide program implementation in their geographical area.

While private facilities submit the statistics report that they are required to submit by law, some of the data they report tend to be inaccurate, because some of the indicators are related to the amount of their tax payments (so reporting may be biased in a way that lowers taxes).

Data on some indicators is collected by more than one of the parallel reporting systems described above. In theory, coordination for cross-checking of indicators should be happening on a regular basis between reporting units at all levels but it is unclear to what extent this process is working in practice to produce better quality data.

Under a recent reorganization, the State Statistical Committee – which previously had an autonomous status in the state administration – has been moved within the Ministry of Economics. There are some concerns that this loss of autonomy could impede the committee's ability to publish unbiased reports.

### **Program monitoring and evaluation**

There is no M&E department at the MOH and it is unclear whether there is a specific MOH department with mandate and capacity to oversee or conduct program M&E according to international standards (such as WHO methodological guidelines). The Ukrainian Institute for Strategic Research (UISR) under the MOH conducts assessments of various pilot projects and programs that are overseen by the MOH and produces annual reports on the health sector that include some monitoring components.

### **International and nongovernmental organizations**

Data collection by NGOs working in the health sector is primarily oriented toward reporting and M&E requirements set by their donors. In some areas with stronger donor coordination, such as HIV/AIDS, uniform M&E indicators are now used by many of the key or larger organizations, with results for such indicators compiled and published on a regular basis by a coordinating organization (e.g., UNAIDS for HIV/AIDS). A similar initiative is planned for the area of TB, under the leadership of the Development Fund of Ukraine. However, the extent of coordination of M&E efforts among organizations working on TB and HIV/AIDS issues appears to be a result of the prescriptive requirements by the Global Fund, or an initiative of an organization from the donor/NGO community. The assessment team did not find any examples of government-led coordination of such efforts to harmonize M&E systems or indicators.

## **3.6.2 RESOURCES FOR GENERATING AND USING HEALTH INFORMATION**

### **Capacity and resources for data collection, management, and analysis**

Data reporting in the routine MOH HIS (described in Figure 3.6.1) from the regional to the central level uses a unified electronic system, while reporting at lower levels is paper based. Localized information systems are used for management in some individual facilities but these systems are not linked with the MOH routine electronic system.

Human resource capacity for routine data collection, compilation, and reporting by health care providers who maintain patient records and are responsible for the first level of data compilation and reporting is generally considered to be adequate. However, there are important gaps in correct use of some forms (e.g., Form 66-Discharged Patient Record, some of the TB reporting forms) that were identified by reviews conducted by WHO and the World Bank. Recommendations to address gaps include additional training on use of the forms, and introduction of incentives for providers for accurate records and reporting.

The capacity for data compilation, analysis, and reporting by staff responsible for statistics in large hospitals, district and regional health administrations, and at the national level, is considered to be adequate (see Box 3.6.1). There is also strong in-country capacity for health economics and systems analyses, both at the health system research unit of MOH (the UISR), at the State Statistical Institute, and at university institutions. Some previous assessments have noted, however, that there is a shortage of specialists trained in biostatistics, M&E, and epidemiology.

The potential for efficient and effective use of the HIS for service delivery is constrained by the low level of information technology (IT) equipment and skills at facilities, both among health workers and managers. The majority of PHC facilities do not have computers. Only 32 percent of family medicine/general practice cabinets have computers, although this indicator ranges from less than 7 percent in some regions to more than 60 percent in regions supported by EU projects (UISR, 2010). In the PHC sector, computers are used primarily for maintaining patient databases at individual facilities. Some individual facilities that are equipped with computers also produce electronic statistics reports, and

**Box 3.6.1. Strong capacity for data collection, analysis and reporting at facility levels**

An oblast hospital visited by the assessment team had a staff of seven specialists in its statistics department; the department director had training in medical statistics. About 200 forms recording and reporting forms are in use at this type of facility.

electronically maintain payroll, financial, and human resource records. One key constraint in HIS resource allocation is that the line-item budget structure for individual facilities does not include information and communications technology (ICT) upgrades, and does not allow for allocation of savings from other expenditure categories (building maintenance) for ICT purchases. Health facilities receive ICT equipment from the district or regional health administrations (which rarely prioritize ICT over medical equipment, given chronic shortages in approved health budgets) or from private donations.

A comprehensive facility-level health management information system (HMIS) that includes patient registers, integrating clinical information about patients from other facilities, and human resources workload and performance monitoring functions was piloted successfully in some PHC facilities, but it is unclear whether there are plans to scale up this system nationwide (Lekhan, Rudi, and Richardson, 2010).

There are plans at the MOH level to increase use of electronic medical records in public health care facilities. The “Concept of Electronic Registry System and Medical Information Exchange between Medical Facilities” has been put up for public discussion. However, implementing this concept was estimated to require significant resources, including purchase of 25,000 new computers and developing the requisite software, and it is unclear what its current status is (Lekhan, Rudi, and Richardson, 2010). At this point in time, it appears that the future of these HMIS initiatives will be determined by decisions related to the development of HIS as part of the planned health care restructuring.

Institutions that conduct health systems research and complex analyses that are critical for program and policy decision-making at the national level are critically under-resourced. For example, only about half of the research staff of the UISR has work computers (reportedly, many of the staff uses their home/personal computers for their work).

### **Planning and resource allocation for HIS development**

Some aspects of the HIS – such as the availability and effective use of ICT – have received attention in various strategic and planning documents on the development of the health sector, education of health cadres, and health care reforms (Lekhan and Rudi, 2007; Lekhan, Rudi, and Richardson, 2010). The annual reports on the health system produced by the UISR include data and analysis of the state of ICT in the health system, noting the resulting constraints for efficient service delivery (UISR, 2010).

However, it is unclear to what extent this attention to the shortages of HIS resources translates into strategic planning for priority areas such as investment in ICT, training of health care providers in data management, and training of managers in use of data for managerial and programmatic decision-making.

There is no national strategic plan for HIS development or a functioning interagency committee on HIS at the national level to coordinate efforts, roles, and responsibilities, and to prioritize funding for the development of the national HIS.

The strategic importance of HIS for the planned health reform agenda could thus benefit from a comprehensive HIS assessment to inform the development of a strategic plan for the HIS. This process could use, for example, the framework and toolkits developed by the Health Metrics Network,<sup>15</sup> which has supported such assessments in many countries, including Moldova, Georgia, Armenia, and other CIS countries.

### 3.6.3 OUTPUTS OF THE HEALTH INFORMATION SYSTEM

There are a variety of statistical and analytic reports produced by a number of institutions that collect and analyze health sector data in Ukraine. These include: routine health statistics reports; health system analyses and research; surveys of households, individuals, health care providers, and health facilities; and the census (Box 4.6.2).

#### **Use of data for decision-making**

An important constraint in use of data for decision-making at the facility level is the low level of IT equipment and skills among facility managers, as well as their lack of training in use of data for monitoring, evaluation, and strategic managerial decision-making. Also, the current system of organization and financing of the health facility network limits the ability of managers to use data for optimization of service provision resources (even if they can and are motivated to use the data to do so).

The appropriate use of data for policy-making at the national level appears to be inadequate. For example, it is not clear whether and how NHA findings are used for budget planning or any other policy-making. As discussed in greater detail in the Human Resources and Governance sections of this assessment, the use of evidence-based strategic planning in the health sector both at MOH and regional level needs to be strengthened, including capacity building in analysis and interpretation of data for decision-making. This is one area where international technical assistance can be particularly valuable.

#### **Availability of data to the public**

It is important that HIS outputs are available in an accessible, understandable, and user-friendly format not only to policymakers but also to the public. As discussed in greater detail in the Governance section, timely civil society access to information on health status and health system indicators, and trust in the quality of the data behind these indicators is essential for the ability of civil society to hold the government accountable for health sector performance and to ensure an effective, evidence-based dialogue between the government and civil society organizations on health sector issues.

While a staggering amount of data is processed and available in the routine HIS managed by the MOH, data on key health indicators are not available on the main MOH website or on the site of its CMS. Not all of the detailed statistics and analytical reports produced by the UISR are available online, possibly due to the resource constraints faced by the institute. The most accessible health sector statistics are available on the website of the State Statistical Committee, although the selection of health indicators there is limited.

Some of the data quality issues discussed earlier in this section have led to the public's mistrust of some officially reported indicators. Lack of transparency in how some indicators are calculated is one reason that has been cited for mistrust in official health statistic reports.

Better availability and transparency of data processing, including official acknowledgment of data quality issues and other limitations, is a key HIS area that needs improvement. The MOH in particular needs to

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<sup>15</sup> These are available online from the Network's website: <http://www.who.int/healthmetrics/tools/en/>

ensure that data for key population health and health system indicators are available in a user-friendly format on its main website, and that the site is regularly updated; a catalogue of key health statistics publications produced by other entities (e.g., the State Statistical Committee) with web-links to these

### BOX 3.6.2. HEALTH INFORMATION PRODUCTS

**Routine Health Statistics Reports.** The CMS reported producing about 10 statistical publications and publishing additional reports online; however, the CMS website\* does not appear to contain any readily accessible statistical reports or data for Ukraine in its “public data” section.\*\* The State Statistical Committee (SSC) produces an annual demographic yearbook, as well as publications on standards of living, socio-demographic indicators, and population health; these reports include a publication focusing on MCH (SSC, 2010) and NHA (SSC, 2010). Some of these publications are available on the SSC website, which also has data on a number of health system indicators. Additional reports with detailed health statistics are published by the UISR (described below). Vertical programs (such as TB and HIV/AIDS) also publish annual reports with statistics and performance assessment related to their areas; some of these reports are available online.\*\*\*

**Health System Research and Analyses.** The UISR produces an annual report with comprehensive analyses of the status of health system components and programs, including regional reports (“Results on Activities in the Ukrainian Health Care System”).§ The institute also produces a variety of research and costing studies that it uses to develop methodological recommendations for the MOH. A selection of these is available online. The European Observatory on Health Systems and Policies is currently in the process of finalizing an updated report on Ukraine as part of its Health Care Systems in Transition (Lekvan, Rudi, and Richardson, 2010) series of country profiles. This report is an update to a 2004 analysis (Lekhan, Rudi, and Nolte 2004) and provides an analytical description of the health care system and of reform initiatives in progress or under development. Health system experts from Ukraine were lead authors for both the 2004 and the updated publication. In addition, international technical and donor organizations with presence in Ukraine (WHO, USAID, World Bank, and others) have supported a number of assessments on health system issues (e.g., procurement and supply management) and disease-specific program areas (such as TB and HIV/AIDS); however, the assessment team found that some of these reports were not publicly available months after their completion.

**Surveys (population, patient, provider).** A Demographic and Health Survey was conducted in 2007 with support from USAID and in collaboration with the Ukrainian Center for Social Reforms, SSC, and MOH. There has not been an update of this survey. The SSC conducts some population-based surveys that include health indicators, but there is no regular/scheduled series of such surveys – they are often conducted with funding support from international organizations, and focus on topics that are prioritized by the government. Research institutions including the Ukrainian Institute of Social Research and the Kyiv International Institute of Sociology also conduct surveys on health topics (such as HIV/AIDS), some with international technical and financial support (MOH, 2009). In addition, international projects providing technical assistance conduct various surveys on narrow topics related to their work and limited to the geographical areas where their projects are based.

**Census.** The last census was conducted in 2001 and the results are available online.§§ The next census, planned for 2011, was postponed by a year due to budgetary shortages. The lack of recent census data is an important limitation for appropriate regional resource allocation (as discussed in the Governance section). Address registration records (another source of data on distribution of the population) are considered to be largely inaccurate, which makes a timely update of the census particularly important.

publications should also be included.

\*<http://medstat.gov.ua/ukr/statreports/access.html?id=13> (Accessed March 24, 2011)

\*\* The website has the datasets of the European Health for All Database and what appears could be a section of this database for Ukraine (as a separate data file that cannot be viewed due to lack of instructions on how users can download and install the relevant files).

\*\*\*For example, online documents include: Ukrainian Centre for Tuberculosis Control, 2010, and MOH 2010 (UNGASS Report)

§ The reports for past years up to 2008 are published on the institute’s website: <http://www.uipr.kiev.ua/index.asp?p=annual>

§§ <http://www.ukrcensus.gov.ua/#>

### 3.6.4 HEALTH INFORMATION SYSTEM: HIV/AIDS

The findings of this assessment on HIS considerations HIV/AIDS align with the results of a series of comprehensive recent assessments conducted under the leadership of WHO (De Colombani and Veen, 2011) and UNAIDS (Elo et al., 2009).

A 2009 comprehensive external evaluation of Ukraine's HIV/AIDS response (Elo et al., 2009) identified several strengths of the M&E system. These included the presence of appropriate national and regional M&E indicators that are tracked regularly, and a recently strengthened M&E system. Shortcomings of the existing M&E system identified in the assessment included insufficient level of country-level harmonization of information flows and limited usage of obtained data to formulate strategies and develop programs.

The set of national and regional M&E indicators adopted by the GOU are generally considered to provide a good basis for monitoring the national response to the HIV/AIDS epidemic. However, the gaps in coordination between the parallel data reporting systems associated with vertical programs with regards to data for indicators collected by multiple systems affects the information on HIV/AIDS indicators. For example, the MCH vertical system does not share information with the AIDS center for PMTC. It is unclear to what extent the creation of regional M&E centers for HIV/AIDS under the umbrella of the National M&E Center for HIV/AIDS might resolve such fragmentation of the HIS. Some have suggested that this model for M&E of the HIV/AIDS program – once established and tested – can potentially serve as a model for establishing strong M&E systems of other programs.

The shortage of resources for HIS from the State health budget also affects the HIV/AIDS program. The National Operation Plan for 2011–2013 of the “State Program of HIV Prevention, Treatment, Care and Support for HIV Positive People and AIDS Patients for 2009–2013” (MOH (b), 2009) does not include adequate state resources to support M&E, and the Global Fund resources for this are not sufficient to maintain a functional national system (USAID (b), 2010). Institutionalization of M&E capacity in the national programs is one area receiving ongoing support by NGOs and international organizations. The recently established M&E unit at the Ukrainian AIDS Center is receiving support from the CDC to manage sociological and epidemiological surveillance studies of MARPs. Currently, this work is organized and contracted by the HIV/AIDS Alliance.

Similarly, the gaps in use of HIS outputs for effective policy- and decision-making in the health sector affect the HIV/AIDS response. While Ukraine has extensive information on the status of the epidemic and underlying factors (especially in comparison with other countries), this strategic information is not used optimally in the current process of HIV/AIDS program planning. For example, the current National AIDS Plan has not taken into consideration the findings and recommendations from a series of comprehensive assessments of the national HIV response (Elo et al., 2009).

### 3.6.5 HEALTH INFORMATION SYSTEM: TB PROGRAM

The current M&E performance framework of the National TB Program (2007–2011) has important gaps such as outdated or misleading indicators and lack of adequate indicators on drug-resistant TB and TB/HIV. As discussed in the section on Human Resources, strengthening the capacity of program managers in evidence-based strategic planning is one area that needs to be prioritized across the health system, including the vertical programs. The M&E unit at the National Center for TB Control is receiving financial and capacity-building support through the recently received Global Fund Round 9 TB grant.

As with other programs, data on TB flow through parallel reporting systems. Recording and reporting of TB data is conducted by two parallel systems through their units at district, regional, and national level: the system of the National TB Control Program and the SES system. The reporting units of the two systems at each level coordinate through cross-checking of their data, although it is unclear to what

extent this coordination is successful in ensuring consistency in results for key indicators at national level. Routine data from the national TB program is collected and processed by the M&E Unit of the National Center for TB Control, which then reports to the MOH CMS. The National Center for TB Control is responsible for coordination of TB data management with the SES and the Committee on AIDS, TB, and Other Socially Dangerous Diseases, which are also tracking TB indicators. According to the recent assessment of the National TB Program by WHO (De Colombani and Veen, 2011), these parallel information systems “duplicate each other, are not well maintained and are often confusing.”

The WHO assessment identified a need for training on using the WHO-compliant forms for TB coordinators and other health workers at subnational levels (especially in regions without current or past international TB project support). Other system changes that should be considered include introducing incentives for TB service providers for timely and accurate form completion, and investing in building a supportive supervision environment for TB service providers (particularly the process of providing feedback to reporting units on how to use their data to monitor and improve service delivery).

Similar to the situation described for the general health system, electronic patient records systems have been introduced by a number of individual TB facilities, but these are localized systems used internally for case management (i.e., paper-based referral forms are used for sharing patient information with facilities that treat or observe the same patients). There are plans to introduce nationally e-TB Manager, a comprehensive web-based tool that integrates data on case management, drugs supply and program management. The e-TB Manager application has already been piloted in several oblasts with support from USAID projects (Management Sciences for Health and PATH), but rolling it out nationally would require providing all health workers who will be using the system with the necessary ICT equipment and training, and ensuring continued funding for maintenance of the system (such as budget allowance for web-access and ICT repairs).

### **3.6.6 HEALTH INFORMATION SYSTEM: FAMILY PLANNING PROGRAM**

The Reproductive Health of the Nation Program 2007–2015 includes two indicators to monitor the performance of family planning activities: the abortion rate and contraceptive use. The system for data collection on abortions has seen some important improvements in recent years. However, reliable, consistent, and systematic reporting on contraceptive use in Ukraine is missing. Addressing this problem would require a comprehensive review and overhaul of the family planning data collection process. Establishing an appropriate “home” for the family planning program at the national level will be essential to ensure the success of such efforts.

Data on abortions are collected through the routine HIS managed by the MOH; it is published in a statistical report by the State Statistical Committee (State Statistical Committee, 2010). The MOH collects data on the number of abortions performed at health facilities, including facilities that are under the jurisdiction of the ministries of Defense, Internal Affairs, Transportation and Communications, and others, as well as from the Academy for Medical Sciences (AMS) and the private sector. However, there are concerns that the number of abortions in private facilities is underreported.

Systemic issues with the HIS for family planning service provision result in lack of reliable and complete data on key indicators of contraceptive use. The MOH measures of contraceptive use include statistics on the number of registered users of IUDs and hormonal methods, based on MOH service statistics data. However, these data only include women who receive contraceptives at certain types of government health facilities, and exclude many of the sources of family planning services such as smaller health facilities, pharmacies, or private providers. Although family planning services (counseling and provision of contraceptives including condoms) are now provided by family doctors and other types of providers, reports on family planning services are now only required from OB/GYN doctors. Family planning services provided in AIDS centers, for example, are not reported into the MOH system.

While most Ukrainians purchase contraceptives from pharmacies, contraceptive sales data are not tracked by the MOH for the purposes of establishing better estimates of total contraceptive use such as CYP. The only estimates of CYP the assessment team could find were produced by the USAID-sponsored Together for Health Project, which were based on consolidated data contraceptive sales data, government contraceptive procurements, and USAID-donated contraceptives.

In addition, the separate information reporting systems for contraceptive supplies and for family planning services are a constraint for effective family planning program management at all levels. Integration of reports for these two components throughout the system is an essential step that should be taken in the much needed overhaul of the family planning program.

### 3.6.7 SWOT ANALYSIS

**TABLE 3.6.1. SWOT ANALYSIS OF HEALTH INFORMATION SYSTEMS**

<b>Equity, Access, Efficiency, Quality and Sustainability</b>		
Strengths and Opportunities	General Health Services	<ul style="list-style-type: none"> <li>• Key components of the HIS are institutionalized (routine HIS of MOH, epidemiological surveillance, vital statistics system, census, state statistics administration)</li> <li>• There is a culture of regular data collection and reporting through the routine HIS of the MOH</li> <li>• There is strong in-country capacity for health economics and health systems analyses</li> <li>• Recognition of HIS issues by health sector leadership, and how these issues could impede planned health care reforms</li> </ul>
	HIV/AIDS	<ul style="list-style-type: none"> <li>• There is strong donor support for M&amp;E system improvement, aiming to institutionalize M&amp;E in the state HIV/AIDS program</li> <li>• Appropriate indicators are tracked by the national program</li> <li>• M&amp;E frameworks and indicators among NGO and state service HIV/AIDS service providers and funders are harmonized</li> </ul>
	TB	<ul style="list-style-type: none"> <li>• Increasing donor support for the TB program (including a recent Global Fund grant)</li> <li>• Recent WHO assessment of the National TB Program provides comprehensive information and recommendations for evidence-based improvements</li> </ul>
	Family Planning	<ul style="list-style-type: none"> <li>• Established routine data collection and reporting system exists and can be utilized to collect improved family planning data</li> </ul>
Weaknesses and Threats	General Health Services	<ul style="list-style-type: none"> <li>• Resources are inadequate, particularly for ICT upgrades of the HIS and related training</li> <li>• Use of data for evidence-based decision-making is inadequate</li> <li>• There are data quality issues for some types of indicators resulting from disincentives for accurate reporting</li> <li>• skills for completing and compiling some types of forms (e.g., for TB) are insufficient</li> <li>• Change in the autonomous status of the State Statistical Committee could impede its ability to publish unbiased reports</li> <li>• Data on key health indicators are not available to the public</li> </ul>



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**Equity, Access, Efficiency, Quality and Sustainability**

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HIV/AIDS	<ul style="list-style-type: none"><li>• There are gaps in coordination on common indicators collected by multiple routine data reporting systems</li><li>• State funding for M&amp;E of HIV/AIDS program is inadequate</li><li>• There is need for greater use of available evidence (e.g., from comprehensive external program assessments) to improve planning and program implementation at national level</li></ul>
TB	<ul style="list-style-type: none"><li>• Selection of indicators for tracking performance of the National TB Program is inadequate</li><li>• Skills are needed for completing and compiling some types of forms</li><li>• There is a lack of electronic patient record systems</li></ul>
Family Planning	<ul style="list-style-type: none"><li>• Key family planning service providers and condoms are excluded from the family planning reporting system</li><li>• Separate reporting systems for contraceptive supplies and for family planning services are a constraint for effective family planning program management</li></ul>

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## 4. OVERARCHING FINDINGS AND OPPORTUNITIES

The findings within each of the six building blocks are specific and important to address in order to strengthen each aspect of Ukraine's health system and increase its ability to offer sustainable, quality health services to meet the needs of the population. When stepping back to view the system as a whole, there are a number of underlying issues that impact its functioning and, if addressed, could have a wide-reaching positive impact on the system in the long term. This chapter presents criteria for identifying cross-cutting opportunities and constraints, highlights important strengths and opportunities identified during the assessment that can be built upon in the reform process, and describes the four cross-cutting health system constraints identified by the assessment team.

The essential finding of the assessment team is that major health system reforms are needed, and current economic pressures, political commitment, and health imperatives combine to create an opportune time to pursue them.

The Ukrainian health system is at a critical crossroads, one that has been faced by a number of countries in the region. Current health outcomes are not in line with the country's income level, and some indicators are extremely poor, notably male mortality and rates of HIV/AIDS and TB infection. The extensive post-Soviet service delivery structure is no longer affordable, particularly in light of the recent global economic crisis. Ukraine is one of the few countries of the former Soviet Union that has not significantly reformed its health system. In fact, the system's capacity has deteriorated due to lack of investment in infrastructure, underfunding, and misalignment of resources (including human resources). Past attempts to implement health reform on a national scale in Ukraine have been less successful than hoped – either too vertical in nature (e.g., improving MCH services) or limited to pilot sites (e.g., introduction of family medicine and strengthening PHC in Lviv oblast).

In response, the GOU has put forward an ambitious platform of health reform to be initiated and implemented over the next five years. The government is to be commended for its commitment to pursue this wide-scale health reform. The assessment team found that the health reform program appears to reflect best practices and to be informed by the experiences of neighboring countries that have made further progress in reforming their health care systems over the past 15–20 years. The GOU's near-term emphasis on optimizing the hospital network and further strengthening PHC, restructuring health financing and introducing new provider payment systems, and improving quality of care are in line with health reform models and best practices that have been pursued successfully in other post-Soviet countries.

### 4.1 STRENGTHS AND OPPORTUNITIES

The SWOT analysis exercise that was conducted during this HSA identified a number of strengths and opportunities in the health system in Ukraine including:

1. High-level government support explicitly for health reform and interest in monitoring implementation progress. This includes an important interest in reforming health financing, a particularly difficult but essential element of reform.
2. A solid health reform strategy and plan that includes interventions designed to address key health system weaknesses and gaps.

3. An ambitious, but potentially realistic implementation schedule starting in three pilot oblasts but within a national framework.
4. There is international support for the reform agenda. The World Bank providing Ukraine a grant for technical assistance and would be willing to consider a loan to support the reform plan. Other donor language supports health system strengthening (Global Fund, PEPFAR, and the US/Ukraine Partnership Framework).
5. A relatively high percentage of GDP (7 percent) is currently spent on health care. This combination of government and out-of-pocket expenditure could be sufficient, if spent efficiently, to meet the health care needs of the population. Unfortunately, out-of-pocket payments tend to be regressive, significantly affecting the poor and vulnerable.
6. There is commitment of significant donor funding in HIV and TB. Global Fund support has enabled HIV and TB services to rapidly scale up. Funding for these important disease interventions helps ensure that prevention, treatment, and support services are available and frees government funding for other essential health system needs.
7. MCH (antenatal, delivery, and postnatal care) is available and of acceptable quality. This is one of the key strengths of the Ukraine health system.
8. Ability and a culture of data collection and analysis exists. This capacity can be built upon to improve the use of data for policy-making, planning, and evidence-based decision-making.
9. Some projects are working to increase HIV/TB integration and making some progress. The latest Global Fund TB Grant will build on this work.
10. There is strong NGO and civil society capacity, especially in USAID priority disease areas such as HIV/AIDS. These civil society organizations fulfill an important watchdog function, provide preventative and outreach services, and also have the capacity to inform policy and perform public education/awareness services.
11. Nonprofit Sickness Funds offer prepayment schemes for health services for a small portion of the population. With proper support, these funds could take on a larger role to mitigate the risk of catastrophic health expenses among the population and increase access to affordable health care.
12. There is a large health workforce. There is a sufficient number of medical personnel in Ukraine, although the type and geographic location are not ideal to meet the country's needs.
13. A government order is in place to guide improvements in quality of care.
14. There is recognition of the importance of HIS and strong in-country capacity for health economics and health systems analysis.
15. There is interest in implementing EU drug quality assurance standards.
16. The medical education system is working towards international standards according to the recently signed Bologna Accord.

## 4.2 KEY CHALLENGES

The team analyzed the cross-cutting nature of major findings and summarized the key issues into a table (see Table 5.1) that shows the most important issues within each health system component, and identifies how that issue originates and intersects with other components. The key weaknesses of each component of the health system are placed in intersecting columns that show how these issues “originate in” and affect other components. For example, the “Governance and Leadership” component is impacted by “Financing” – the input based budgeting system that impedes health managers’ ability to

manage resources to meet the health needs of the population. Similarly, “Service Delivery” is impacted by high out-of-pocket payments for drugs.

After tabulating the key issues affecting each of the health system components, the assessment team analyzed the cross-cutting issues that impacted the system most extensively. The team identified four cross-cutting constraints that captured much of the key weaknesses across all health system components:

**1. Overall leadership and governance of the health system requires strengthening**

The minister of health position has changed hands frequently in the past five years and the MOH is currently undergoing an institutional restructuring. MOH influence is weakened by the health financing structure – the ministry manages less than 20 percent of total spending in the health sector. The MOH funds only vertical programs, whereas most overall health spending is allocated at the oblast and rayon levels. Yet facilities and local health offices are functionally accountable to the MOH. These factors (political instability, low funding levels, and disconnect between managerial and functional accountability) weaken MOH authority over the sector. The widespread use of informal payments, poor HIS and M&E systems, and a budgeting system that does not account for quality or quantity of services performed (thus weakening accountability) further serve to weaken governance capacity in the health sector.

**2. The structure of service delivery, including human resources, does not match the health needs of the population**

The health system is oriented towards inpatient care, with PHC significantly under-resourced in terms of funding, facilities, supplies, and human resources. There is evidence of over capacity at the hospital level. Important services such as HIV, TB, and family planning are vertically managed with insufficient integration into the PHC system. This impacts the system’s ability to implement DOTS therapy and to maximize access points for testing and treatment of HIV. While there are enough medical workers in the system, the geographic and functional distributions do not meet needs. For example, there are nearly twice as many OB/GYN specialists in the country as family doctors. Family doctors themselves have inadequate training in family planning, TB, and HIV.

**TABLE 5.1. CROSS CUTTING CONSTRAINTS WITHIN THE UKRAINIAN HEALTH SYSTEM**

<b>Resulting Health System Constraint</b>	<b>Governance and Leadership</b>	<b>Financing</b>	<b>Service Delivery</b>	<b>Human Resources</b>	<b>Management of Pharmaceuticals and Medical Supplies</b>	<b>Health Information System</b>
Governance and Leadership		Input-based budgeting norms impede system performance, inhibit managers' ability to make decisions to efficiently and effectively manage facilities and health programs.	Separation of financing from governance of health facilities undermines governance ability of MOH/health authorities.	Uneven management capacity at the oblast, district, and facility levels impedes planned reforms.	Data on availability of medicines and medical products across facilities/regions is not used effectively for planning.	Need for greater and more effective use of health sector data for strategic and evidence-based planning and policy-making. Lack of sufficient ICT resources for effective health system management.
Financing	Insufficient practices for obtaining low prices of inputs. Lack of action from the political leadership and successive governments to reform the health sector promoted the maintenance of the current economically unsustainable health system.		Current service delivery system focusing on inpatient and specialty care is expensive and underfunded, which compromises quality of care, coverage, and sustainability, and results in high out-of-pocket spending by patients (affecting accessibility, especially for low-income households).	Uneven financial management skills and experience at the oblast, district, and facility levels impedes effective use of resources.	Procurement system increases cost to government, and leads to inefficient spending of existing drug budgets. This results in drug shortages and widespread out-of-pocket payments by patients.	Lack of appropriately detailed health expenditure data (e.g., NHA) impedes efficient budgeting for health.
Service Delivery	Budgeting system impedes ability to rationally plan and manage effective health service delivery. Licensing and accreditation exist but resources to enforce standards are limited. Quality control order implementation is uneven. Frequent MOH leadership changes creates lack of continuity in implementation of orders.	Little or no financial flexibility or incentives at facility level to improve efficiency of service delivery and responsiveness to population health needs.		Norm-based human resources allocation results in misallocation of providers – not matched with service delivery needs. Training of family doctors not yet executed to scale family doctors not adequately trained for duties assigned.	High out-of-pocket payments for drugs and high cost of government-procured medications impede access to drugs.	Disincentives for accurate reporting of service delivery data limit the usefulness of this type of data for improving service delivery and coverage.

<b>Resulting Health System Constraint</b>	<b>Governance and Leadership</b>	<b>Financing</b>	<b>Service Delivery</b>	<b>Human Resources</b>	<b>Management of Pharmaceuticals and Medical Supplies</b>	<b>Health Information System</b>
Human Resources	Lack of strategic planning process for effective human resources development.	Training, staff allocation, and hiring decisions are not based on services provision needs, but rather on rigid allocation norms.	Worker motivation is adversely affected by poor working conditions and infrastructure.		Lack of availability of free or low-cost drugs impacts worker motivation to prescribe or sell drugs that may not be the most cost-effective option, which impedes access and quality of care.	Low overall level of ICT resources and skills limits the ability of health care managers to use data for decision-making. Low level of computerization in higher education facilities is a constraint for quality of training of health cadres.
Management of Pharmaceuticals and Medical Supplies	The procurement process is not structured to minimize costs. Management culture discourages timely and accurate reporting of supply needs and stock-outs.	Lack of needs-based budgeting and financing for pharmaceuticals and medical supplies across geographic regions, facilities, and diseases.	Lack of effective reporting component in the overall supply management system leads to frequent drug shortages.	Inadequate level of pharmacotherapists contributes to poor selection of drugs for procurement, particularly ARVs.		In public facilities, patient and resource management systems are mostly paper based. Of those that are electronic, maintenance is weakened by a lack of computers.
Health Information Systems	Reporting of problems or poor results may result in punishment (rather than problem-solving assistance through supportive supervision), which limits incentives for accurate reporting of negative results.	Insufficient funding allocation for HIS, due to budgeting norms. HIS improvements are not a line item in the current budget format.	Separation of financing from governance (M&E) of health facilities does not create incentives for accurate reporting.	Limited capacity for data interpretation and use for strategic decision-making among health care managers limits the potential impact that data can have for improvements in service delivery	Reluctance of providers to report stock-outs (related to management of pharmaceutical system)	

**3. Health financing systems and budgeting norms adversely impact most aspects of the health system**

Government spending is not adequate to meet the health needs of the population. Government funding allocation is not according to the health needs of the population, but rather according to line-item budgets supporting existing infrastructure. Managers are not free to manage budgets according to needs and have little incentive to manage efficiently. Extremely low wages of staff and the system of informal payments hurt worker morale, distort incentives, and ultimately adversely impact quality of care. Central government procurement of essential drugs for facilities does not provide the most optimal selection or price of drugs.

**4. While quality of care is improving in some priority areas, overall the content and nature of clinical practice in Ukraine requires further standardization and modernization**

While quality of care cannot be sustainably improved without the above cross-cutting issues being addressed, those steps will not be sufficient to ensure improvements in quality. In addition to addressing issues of governance, health delivery structure, and health financing, concentrated attention should be paid to the methods of adopting evidence-based practices, improving provider skills and competencies, and introducing quality assurance, improvement, and control mechanisms.



## 5. RECOMMENDATIONS

The GOU and other stakeholders may build on the strengths and opportunities identified by the assessment team as a foundation for successful health reform implementation. The team recommends that the government and development partners focus not only on the content of health reform, but also place particular emphasis on *how* health reform will be implemented. Lessons from the region can be instructive but should be interpreted in the context of the Ukrainian situation. Suggestions to ensure that reform implementation has a greater likelihood of success include the following.

### 5.1 PROMOTE STRONG POLITICAL LEADERSHIP AND GOVERNANCE AS KEY INGREDIENTS TO SUCCESSFUL REFORM

1. **Clarify institutional roles and relationships.** Critical to the success of health reform is establishing and strengthening appropriate institutional roles and relationships, in other words, ensuring that the right institution is doing the right thing at the right time. More specifically, health reform strategies and plans should include clear assignments of specific interventions to institutions, groups, and individuals (as well as deadlines) and be used for routine monitoring in order to hold responsible parties accountable for meeting their obligations.

This may require short-term planning as well as long-term planning, for instance to create a vision around which entity should perform which health system function in the future. As an example – should implementation teams be established at national and regional levels in the short-term to initiate reform? If so, the composition of these teams should be inclusive of government and nongovernment stakeholders to ensure support of the reforms, and the terms of references carefully defined. In the long-term, should professional medical associations rather than the government assume the role of professional development, certification, and credentialing of health workers? If so, what are some steps that can be taken in the short term (by government, donors, and associations themselves) to increase their capacity to take on these roles?

2. **Address and agree on essential issues early in reform implementation including:**
  - Are new policy and stewardship functions required of the MOH? What are the short-term requirements and what are long-term goals?
  - What are the respective roles of the ministry and oblast/rayon health departments?
  - What are the roles of institutions involved in health financing and how will they related to each other?
  - What will be the level of autonomy for health providers, including their institutional status, as well as aspects of management and clinical autonomy?
  - How will improvements in quality of care be encouraged and monitored, for example, independent licensing and accreditation bodies, facility-level quality committees, and regional quality commissions and review boards, etc.?
3. **Coordinate development partners around the government health reform platform.** Development partners can bring resources to bear to support various aspects of health reform implementation. To avoid overlap and confusion and to leverage resources most effectively, the

GOU should take in active role in coordinating development partners and donors around the health reform platform. This can take place through bilateral and multilateral joint planning exercises as well as quarterly or semiannual monitoring and dialogue around health reform implementation issues.

4. **Create national and oblast-based health reform committees with both government and nongovernment stakeholders such as large provider associations, patient groups, and health NGOs.** Nongovernment members could supplement the existing team, or be created as advisory groups, “Reform Teams,” to the health committees. This is especially true at the oblast and rayon levels. There are a number of well-known and respected health system specialists in Ukraine who could be tasked to help develop concrete reform implementation steps based on international lessons learned and the Ukraine environment and priorities.
5. **Focus on building capacity in implementation and invest in training in project management.** The majority of health sector leaders and managers in Ukraine are trained health care professionals who have picked up management knowledge and skills on the job. An initial investment in training health sector leaders and managers who will be involved in health reform implementation in project management may significantly pay off in the long run. While the content of the planned health reform is highly technical, implementation will still need to be broken down into concrete steps with institutions and/or persons assigned, budgets defined and funding identified if required, milestones and indicators established to measure progress, and reporting processes in place to enhance accountability. Training resources in project management skills likely already exist in Ukraine in the private sector. The government may identify vendors and work with them to adapt a training program so that it is relevant for health sector reform implementation.
6. **Continue efforts to strengthen procurement and supply chain management.** The GOU has begun a laudable path towards public sector procurement reform that should be continued with particularly emphasis on the health sector.
7. **Consider conducting a HIS assessment and developing a national strategy for HIS development.** Create an environment of positive incentives for accurate health service data reporting (e.g., supportive supervision; reforming the current input-based process of allocation of facility resources; and targeted incentives for providers for timely and accurate reporting). Improve availability of health statistics to the public: a priority starting point should be the MOH website.
8. **Develop a mechanism for monitoring and improving the quality of service delivery.** Improved reporting, supportive supervision, and the use of data to promote evidence-based practices can go hand-in-hand with a number of the recommendations presented above. The key is to remember that improvements in quality will not automatically occur without focused attention and resources on this aspect of health service delivery.

## 5.2 REORIENT THE HEALTH CARE SYSTEM FROM INPATIENT / SPECIALIST MODEL TO PRIMARY HEALTH CARE-FOCUSED MODEL

As part of the shift from the focus of the inpatient care-based service delivery to a PHC-based one, the GOU should begin to allocate more resources to it and strengthen key aspects of the system that support a PHC focus. The following recommendations are listed in relative order of shorter-term (more urgent) to longer-term interventions.

1. **Increase funding for PHC and public health programs.** Investing in PHC is a much more cost-effective strategy to health care provision and reduces health program costs with lowered dependence on expensive specialty and hospital care. Given the disease burden in Ukraine, it is

advisable to invest in public health programs and messages to promote healthy behavior and thus combat the onset of non-communicable diseases and the other chief causes of mortality.

2. **Increase the number of family doctors in the system through training and retraining.** Institutionalize improved pre-service training for family doctors (including the areas of HIV, TB, and family planning). Embark on a family doctor retraining program, with incentives for physicians in other fields (pediatrics, OB/GYN, and internists) to retrain. The government should consider applying for a World Bank loan for such a resource intensive, yet essential, step in the system restructuring process.
3. **Optimize the health care network, coordinated across the various levels of national and local governments.** This is urgently needed to get rid of the unnecessary and underutilized health infrastructure. This must not be done on the basis of any prikaz from the top, but rather be achieved through broad-based consensus and engagements with the local administrations and civil society groups at the regional, city, district and village levels. The optimization exercise should be supplemented with a costing exercise to ascertain the cost-efficiency impacts.
4. **Check self-referral to specialty and hospital care through gate-keeping.** As a first step to enforcing a referral system, sufficient access to PHC services must be ensured. This step must be preceded by an increase in the availability of PHC facilities and providers.
5. **Institutionalize a strategic planning process for HRH development.** This would include planning for adequate PHC providers and reducing the number of specialists. Begin with a baseline assessment, and through a consultative process develop a five-year human resource plan with annual reassessments of the situation and responsive decision-making.
6. **Improve the capacity of health care managers to effectively use of health information/data for planning and policy-making, including:**
  - Training of health care managers and decision-makers at all levels of the health care system in evidence-based planning
  - Provision of IT technology and related training for health care managers at regional, district, and hospital level. Introduction of global budgets for health facilities (as recommended in this HSA) will allow them ability to invest in ICT improvements
7. **Develop a strategic plan for stepwise computerization of health facilities (taking into consideration financial constraints of the government budget).** Conduct a cost-efficiency study of various scenarios of ICT improvement in health facilities.
8. **Establish government funding to support prevention, outreach, and supportive services for HIV/AIDS, TB, and family planning programs.** For the sake of financial sustainability of these activities, it is important to establish more formal relationships between NGOs and government facilities more generally. Outreach and prevention for the target groups are matters of utmost importance for the HIV/AIDS, TB, and family planning programs. The government service delivery system does not have an active outreach mechanism to work among the target, high-risk populations. Currently, NGOs and faith-based organizations that are filling this void are almost exclusively funded by donors and various charity organizations.

### 5.3 PURSUE HEALTH FINANCE REFORM AS FOUNDATION FOR BROAD-BASED IMPROVEMENTS

While it would be ideal to increase government spending for the health sector (to around 4 percent of GDP), spending available health resources more efficiently is the foremost issue for the Ukrainian health sector. Specifically, reorganizing the pooling and purchasing functions of the health financing system

could result in significant cross-sector benefits. The following recommendations are listed in order of shorter-term to longer-term interventions.

1. **Give greater autonomy to health managers to meet service needs.** A first step in this direction would be to make health facilities autonomous nonprofit entities with contractual relationships with the government to provide health services. The new provider payment systems should allow adequate management and financial autonomy to the health care providers in independent planning and management of their budgets, deciding on their staffing, infrastructure, and other input requirements, procuring the required input, and retaining and using the economized funds for facility and service improvements and personnel incentives.
2. **Reduce the number of fragmented pools of government health funds that exist currently at various levels of local government.** A more equitable, efficient and effective distribution of government funds would be to make all health funds pooled to a single system either at the national or oblast levels. The planned reforms have made a positive step in the direction of larger pools, but should go further to consolidate rayon funds to the oblast or national levels.
3. **The GOU's intent to move to population/service-based budgeting is sound and ideally would be structured as:**
  - Per capita based for PHC services
  - Case-based budgeting for secondary and tertiary care
  - Global budgets for special programs such as HIV and TB
  - This recommendation differs slightly from the GOU's current plan, but is based on the experiences of several governments in the region.
4. **Continue learning from the implementation experience of neighboring countries in order to focus on best practices.** The advantage of Ukraine renewing its commitment to embark on wide-scale health reform in 2010–11 is that it can learn from 15 to 20 years of successes and missteps in other countries in the region. A recent WHO book, *Implementing Health Financing Reform: Lessons from Countries in Transition*, edited by Joseph Kutzin, Cheryl Cashin, and Melitta Jakob does an excellent job of summarizing what other countries have learned in terms of actually implementing health financing reform, including the importance of sequencing health financing interventions. As the forward to the book explains, “The evidence suggests strongly that “the devil is in the details,” and the comprehensive analysis contained in this book helps decision-makers – and their advisors – to understand these details and the lessons learned from how countries have coordinated (or not) the various instruments of health financing policy.” Relying on the experiences of neighboring countries that have implemented similar reforms (whether successfully or unsuccessfully) will help guide Ukraine in both avoiding pitfalls and making successful implementation more inevitable. These lessons learned can be garnered either through reviewing document such as this book, technical advice, training, and capacity building on health system reform and health financing targeted to reform implementers, and/or study tours or experience exchanges with other countries.
5. **Identify vertical funding opportunities that may also contribute to strengthening the health system** – Government and donor funding for HIV and TB prevention and treatment is essential and should be continued and increased if possible. However, as additional funding for health reform is likely limited and savings from restructuring may only be available in several years' time, the government may choose to seek opportunities to apply for and use disease-specific funding mechanisms in a catalytic manner to improve the broader health system. Grants from the Global Fund and GAVI Alliance have helped other countries in the region to strengthen their health systems while simultaneously focusing on improving delivery of specific services. The Health Metrics

Network has also provided grants in the region to strengthen HIS, helping ensure that data to measure health system performance and reform implementation is available to policymakers.

6. **Support the environment for voluntary health insurance and sickness funds.** Currently a large percentage of the population of Ukraine is at risk of catastrophic health expenses, and many cite that they have forgone or delayed accessing treatment in the past due to high costs of health care. Policy reform would be a low-cost way for the government to support these risk-mitigating mechanisms and (potentially) the growth of the private health sector, which can serve to take some of the burden from the public sector. There is a need to give policy support to encourage the faster growth of private (voluntary) insurance schemes. For comparatively lower-income groups, the not-for-profit scheme sickness funds can serve as a promising risk-pooling mechanism. With some assistance from the government and donors, the sickness fund could serve as a dependable risk-pooling scheme for the low-income households.
7. **The purchasing function should rest with the administration managing the funding pool and health care provision with the health facilities at various levels.** Both public (government) and private (for-profit and nonprofit nongovernmental and faith-based organizations) health care institutions that meet the eligibility criteria laid down in the existing laws of the country should be equally acceptable as medical providers under the new provider payment arrangements and be considered eligible for government funding. This is a plan articulated in the government's health reform agenda and is a commendable medium-term goal.
  - The health care purchasing function must include two main elements: institutional structure and provider payment systems. The institutional structure should clearly spell out who the purchaser is and the set of rules governing how the health purchasing entity relates to other health, finance, and related agencies and regulators, as well as the various health providers.
  - Capacity building is required in purchasing skills within the relevant health administration as well as in setting up clear and transparent mechanisms of oversight and monitoring of the contractual terms and conditions between the purchaser and health care providers.
  - A robust system of medical information combined with good skills in the audit of medical activities is required in order to ensure that the weaknesses inherent in any new provider payment system are minimized.
8. **The state-guaranteed benefits package (GBP) should be cut to a feasible level that the government budget can afford.** While the re-defined GBP should be financed out of the government budget, for free provision of GBP services, the use of other (non-GBP) medical services must be subject to formal user-fees. The official user-fees for the non-GBP services should be displayed publicly at the front of all government facilities providing these services, and users should get a formal receipt in exchange for their payment. This is a longer-term recommendation, as there must be a well-functioning, carefully designed cross-subsidization scheme to exempt the poor and other subsections of population enlisted in the subsidized category. Private for-profit and nonprofit health facilities should have unhindered access to government (budget) contracts for services, so should the government facilities have access to private funds to augment their revenue base, by dispensing the fee-for-service non-GBP care – under rules and conditions laid down by the MOH and MOF.

## 5.4 IMPLEMENT STRATEGIES TO IMPROVE QUALITY OF CARE

A process for the development, approval, and implementation of evidence-based clinical guidelines for priority health conditions should be developed. Professional medical associations should be encouraged to take a lead role in this process. Facilities should be trained in quality improvement methodologies and supported to introduce these processes to implement new or revised guidelines and measure

performance against key indicators. Finally, government purchasing of health care services through new provider payment mechanisms should be accompanied by a routine sample of clinical audits to ensure the quality of care being provided meets standards that may be articulated in contracts between purchaser and provider.

## 5.5 THE ROLE OF INTERNATIONAL ORGANIZATIONS AND DONORS

International organizations and donors contribute relatively little in terms of overall funding of health care provision, yet they play a targeted and effective role in certain disease areas and, in an advisory role, supportive capacity to government reformers. These roles should be continued and expanded in the case of disease-specific interventions, to include direct support for integration of services and government reform planning and implementation. International organizations providing technical support can continue to provide encouragement and practical, operations-oriented research and tools to support the design and implementation of health care reform. Specific ideas for action for international organizations include:

1. Continue to effectively coordinate messages and efforts in the HIV/AIDS, TB, family planning, and health reform issues. The government would benefit from technical support on public communication of the reform plan, progress, and outcomes.
2. Continue/increase funding for HIV/AIDS and TB prevention and treatment. There are alarming rates of incidence of these diseases, and the government is unable to mount an adequate response in the foreseeable term – Global Fund, USAID, and other donor support is warranted.
3. The GOU's commitment to restructuring and revitalizing the emergency medical system could use technical and financial international support for design and implementation. A development loan for system restructuring, limited to the pilot oblasts in the short term, would be timely.
4. Donors are encouraged to take coordinated roles in providing assistance on family doctor training (improving pre-service curricula) and retraining programs (urgently needed to implement health reforms and reorient system to outpatient and PHC focus.)
5. Improve medical education programs/curricula and health care management programs. Evaluate to assess gaps in training and advise on curricula. Health care management training/education is an important priority. Donor support to increase capacity for providing this training would have long-lasting impact on the effectiveness of health reform.
6. International organizations and donors can support efforts to rationalize service delivery through:
  - a. costing exercises to devise mechanisms for informed rationalization of hospital services
  - b. advising on the definition of primary, secondary, and tertiary care and implications on service, personnel, and facility requirements.
7. Donors could support an updated NHA accounting including subaccounts for HIV, TB, and family planning, which will provide important information for baseline data to track impact of health reform and also for programmatic decision-making.
8. Donors should continue to support free and subsidized contraceptive distribution.
9. NGOs and other civil society groups (such as professional associations) in the health sector through the support of donors are playing an increasing important role in the governance of the sector and they should continue to be supported.

## 5.6 BEYOND THE HEALTH SECTOR

Implementation of the health reforms may contribute to greater transparency and accountability in the health sector. Key activities may include strengthening drug procurement practices and making them more transparent; advocating for more transparent and merit-based selection criteria for ministry staff, facility managers, and heads of government health programs, and contributing to reforms that seek to eliminate inefficient use of resources and waste in the health sector. The GOU also may advocate for the implementation of multi-faceted strategies to better understand and address the underlying causes of under-the-table and informal payments for health services. Developing mechanisms to solicit and respond to patient feedback on services provided may help hold providers, local governments, and the GOU more accountable for providing the guaranteed package of services free of charge in a high-quality manner.

The health sector may connect to broader public finance reforms taking place within the GOU and even serve as a pilot sector for improvements. As health financing is a key component of reforms, there will inevitably be linkages and issues between how health services are financed and managed, and broader government efforts to better manage fiduciary risks and ensure that government resources are used effectively.

The GOU also may consider programming interventions that promote a better business environment for private health care businesses, including business management training and market linkage support. Programs that increase the capacity of business support providers (such as associations, and business training and consulting firms) can provide important support to fledging private health providers. Increasing access to finance and lending for private health care businesses can help encourage medical providers to stay in their field (as opposed to emigrating or taking a job with a pharmaceutical company) in countries where health workers' wages are low, by providing them with market opportunities.





# ANNEX A: DONOR MAP OF PROGRAMS IN HIV/AIDS, TB, AND FAMILY PLANNING

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
United States Agency for International Development (USAID)	Scaling Up the National Response to HIV/AIDS through Information and Services (SUNRISE)	International HIV/AIDS Alliance	HIV/AIDS	<p>Decrease HIV transmission, via targeting high-risk groups (injecting drug users, commercial sex workers, orphans and vulnerable children, men who have sex with men, people with disabilities, and prisoners) and providing prevention information, voluntary counseling and testing services for injecting drug users, and individuals who are at risk of sexual transmission of HIV.</p> <p>Provides quality care and support services for people living with HIV/AIDS and other groups affected by the epidemic.</p> <p>Strengthens the capacity of local nongovernmental organizations and communities to provide and evaluate HIV/AIDS services.</p>	08/19/2004–08/18/2011	\$8.2 million	Dnipropetrovsk, Donetsk, Kyiv, Mykolaiv, Odessa, and Crimea oblasts Project scale-up in Kherson and Cherkasy oblasts	Ministry of Health Ministry of Education Ukraine AIDS Center Network for People Living with HIV/AIDS
	TB Control In Ukraine	PATH	TB	<p>Increase TB case detection to rate of 70%; and TB treatment rates of 85% by 2011.</p> <p>Improve prevention and testing, and treatment of TB.</p> <p>Increase coverage and the quality of DOTS-based services.</p>	09/30/2007–09/30/2011		Kyiv, Dnipropetrovsk, Kherson, Donetsk, Crimea, Zaporizhzhya, Kharkiv	Ministry of Health, TB centers
	Together for Health (TfH)	JSI	Family Planning/ Reproductive Health	<p>Expand reproductive health/family planning services, and work to decrease induced abortions and STIs.</p> <p>Improve access to contraceptives, and increase the range of contraceptives available.</p> <p>Develop the capacity of Ukrainian reproductive health/family planning services, and ensure that family planning services are adequately supplied with needed commodities.</p>	10/01/2005–09/30/2011		Lviv, Kyiv, Kharkiv	Ministry of Health Family Planning and Reproductive Health Centers

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
	Mother and Infant Health Project II (MIHP II)	JSI	Maternal and child health	IMPLEMENT AND INCREASE THE USE OF EVIDENCE-BASED MEDICINE WITHIN MOTHER AND CHILD HEALTH SERVICES IN UKRAINE. ASSIST IN THE DEVELOPMENT OF FAMILY-FRIENDLY DELIVERY ROOMS, AND PROMOTE SKIN-TO-SKIN CONTACT, EARLY BREASTFEEDING AND THE ROOMING-IN OF MOTHERS AND NEWBORNS. DECREASE AMNIOTOMIES AND EPISIOTOMIES. WORKING TO REVISE OBSTETRIC CURRICULA IN MEDICAL INSTITUTIONS AND FOR ONGOING TRAINING FOR OB/GYNS, MIDWIVES, AND NURSES.	2006–2010		Volyn, Lviv, Zhytomyr, Kirovohrad, Kyiv, Poltava, Crimea	Ministry of Health Oblast Health Services
	HIV/AIDS Services Capacity Project	Futures Group	HIV/AIDS	Enhance and improve national and local policy regarding HIV/AIDS, and reduce regulatory, legal, and budgetary barriers for increasing HIV/AIDS services and programming regarding access to HIV testing, treatment and care, and services for people living with HIV/AIDS. Policy work focuses on at-risk individuals, injecting drug users, sex workers, orphans and vulnerable children, infants born to HIV-positive women, and men who have sex with men. Increase linkages between public and civil sector organizations regarding HIV/AIDS.	2007–2012		Kyiv	Ministry of Health Coalition of HIV Service NGOs The All-Ukrainian Network of People Living with HIV/AIDS Project HOPE
	Strengthening Pharmaceutical Systems	Management Sciences for Health	HIV/AIDS; TB	Strengthening the capacity of global initiatives and partners in managing pharmaceutical commodities to expand DOTS.  Increasing the capacity of national health programs to design, apply, and monitor appropriate interventions to ensure uninterrupted supply of quality commodities for TB/HIV co-infection.  Provide technical leadership in pharmaceutical management to Stop TB partners who are developing new tools for TB.	2006–2015		Nationwide	Ministry of Health National TB Center State Service of Drugs and Medical Products  State Agency for Medicine Quality Control

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
	The Leadership, Management and Sustainability (LMS) Program	Management Sciences for Health	HIV/AIDS; TB; Family Planning/ Reproductive Health	Develop of managers and leaders to achieve results in the areas of reproductive health, HIV & AIDS, infectious disease, and maternal and child health. Collaborate with health organizations in the public and private sectors to create sustainable programs and systems and improve leadership and management through strengthening management systems and increasing system-wide leadership. Improve of health care organizations performance at all levels, development of human resources, and capacity to anticipate and respond effectively to changing external environments.	2005–2010		Nationwide	Ministry of Health Civil Society Organizations HIV/AIDS NGOs
	Health Systems 20/20	Abt Associates Inc.	HIV/AIDS; TB; Family Planning/ Reproductive Health	Assessing the Ukraine national health system to provide policymakers and program managers with information on how to strengthen the system as a whole, to include areas of governance, health financing, health service delivery, human resources, pharmaceutical management, and health information systems. Building the capacity of local staff by recruiting and training MOH and hospital staff in Crimea. Recommend practical solutions for hospital restructuring, including consolidating redundant and underutilized services, converting excess capacity into care that is aligned with the health care needs of the population, and creating an integrated unit with multiple services that supplement each.	Ongoing	US\$1,895,000	Nationwide	Ministry of Health
Global Fund to Fight AIDS, TB and Malaria	Round I	International HIV/AIDS Alliance	HIV/AIDS	Increased access to ARVs for people living with HIV. Expanded prevention programming for at-risk populations, focusing on injecting drug users, female sex workers, men who have sex with men, prisoners, and at-risk youth. Implemented communication campaigns to reduce stigma against people living with HIV.	15 March 2004–31 March 2009	US\$ 90,141,694	Nationwide	MOH Ukrainian AIDS Center HIV/AIDS NGOs

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
	Round 6	International HIV/AIDS Alliance in Ukraine	HIV/AIDS	Commenced opioid substitution therapy. Worked with government health services to treat opportunistic infections. Improved ability to provide universal access to HIV prevention services for at-risk populations, including street children.	01 August 2007–31 July 2012	US\$ 79,222,821	Nationwide	
	Round 6	All Ukrainian Network of People Living with HIV/AIDS	HIV/AIDS	Working to provide universal access to treatment, care and support services to people living with HIV. Expanding treatment services for marginalized populations (particularly injecting drug users) via increased antiretroviral treatment, social support, palliative care, diagnosis and management of TB/HIV co-infections, drug adherence counseling, and psychosocial support and care for people living with HIV.	01 August 2007–31 July 2012	US\$ 52,314,214	Nationwide	
	Round 9	Foundation for the Development of Ukraine	TB	Optimize TB laboratory network in the civil and penitentiary facilities. Improve access to TB services for all-in need, including DOTS, and MDR treatment and testing, and for TB/HIV co-infection. Strengthen the capacity of the Ukrainian government to implement TB programming. Mobilizing political support to reduce stigma on TB, and encourage better diagnoses and treatment.	2011–2013	\$ 26,693,383 (Disbursed through March, 2011)	Nationwide	International HIV/AIDS Alliance National TB Control Center World Bank “Ukrvaksina” (State-Enterprise)
	Round 10	Ukrainian AIDS Center (UAC) (MOH), Network for People with HIV/AIDS, International HIV/AIDS Alliance in Ukraine	HIV/AIDS	Expand prevention services and scale-up treatment, care and support services. Build government capacity and ownership of programming related to most-at-risk populations and people living with HIV/AIDS. Decentralize HIV/AIDS decision-making. Give greater voice to people living with HIV/AIDS about access to treatment and testing, and with regards to reducing stigma. Improving the quality of monitoring and evaluation systems regarding HIV/AIDS.	2012–2016	\$305,535,421 (requested)	Nationwide	MOH State Inspectorate for Quality Control of Pharmaceuticals Central Laboratory for Quality Control of Medicines and Medical Products; Laboratory of Pharmaceutical Analysis Working Group on Treatment

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
Foundation for the Development of Ukraine	Ukrainian Center for Medical, Psychological, and Social Rehabilitation of Children with TB	N/A	TB	Establish a Center for Medical, Psychological, and Social Rehabilitation of Children with TB. Provide treatment and rehabilitation for 1,440 children with TB.	2007–2011		Nationwide	Ministry of Public Health of Ukraine  Moskva Children TB Center in Simeiz Town  Yanovskiy Phthisiology and Pulmonology Institute
	Monitoring TB Medicines Quality	N/A	TB	Monitor the quality of TB treatment in Ukraine, and advocate for better treatment conditions and the use of high-quality drugs.	2007–2011		Nationwide	Ministry of Health Committee for Fight Against HIV/AIDS and TB State Service of Drugs and Medical Products  State Agency for Medicine Quality Control Network of People Living with HIV  WHO
	Improving TB	N/A	TB	Develop policy and legal frameworks for TB, ensure the adoption of specific amendments to improve the conditions for and protection of TB. Doctors to provide high-quality diagnostics and treatment.	2007–2009		Central government	Ministry of Health Committee for Fight Against HIV/AIDS and TB  Regional TB doctors
	Supporting Scientific and Applied Research. Holding Scientific, Practical and Socially Important Conferences	N/A	TB	Provide grants for academic research on TB and presentation of papers This includes grants to Yanovskiy Phthisiology and Pulmonology Institute, Lvov Research and Development Institute of Epidemiology and Hygiene, and the Kharkov Medical Academy of Post-Graduate Education.	October 2007–2008		Nationwide	Yanovskiy Phthisiology and Pulmonology Institute Ministry of Health Scientific organizations

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
	Fighting TB Epidemic in Donetsk Region	N/A	TB	Initiating a M&E system for TB treatments. Observing the effectiveness of measures that prevent drug-resistant TB from spreading	2007–2011	UAH 50 million	Donetsk Oblast	Donetsk Region Council and Donetsk Regional State Administration
	Information campaign	N/A	TB	Implementing a media campaign, including TV, radio, and billboard social media advertisements, to raise awareness about TB testing and preventive measures. Created a TB hotline to provide information on TB.	2007–2011	UAH 5,370,851.52	Nationwide	
Swedish International Development Agency (SIDA)	Sex Worker HIV/AIDS Project	AIDS Foundation East-West	HIV/AIDS	Prevention services regarding HIV targeting sex workers.	2007–2010	545,000 Euro	Kirovograd, Vinnitsa, Kharkiv	Ministry of Health
	HIV Incidence Reduction among Young People in Ukraine	UNFPA, UNDP, and UNICEF	HIV/AIDS	Condom promotion, human rights promotion for people living with HIV/AIDS, prevention of mother-to-child transmission.	2006–2009	1,090,909 Euro	Crimea, Kharkiv, Mykolaiv, Kherson, and Dnipropetrovsk	Ministry of Health
	Convictus Comprehensive and Three Step Probation and Post-Prison Reintegration Programme, Phase II	Convictus Ukraine, Convictus Sweden	HIV/AIDS	Working with HIV-positive former inmates, to ensure they can access treatment programs, and prevention of further drug use.	2008–2011	13,630,000 Swedish Kroener	Nationwide	Convictus-Ukraine, The Ukrainian Ministry of Justice, The State Department for the Execution of Punishment
Swiss Agency for Development and Cooperation (SADC)	Improving Perinatal Health Services in Ukraine	N/A	Family Planning/ Reproductive Health	Improve the supply, access, and quality of preventive and curative perinatal public health services.	2005–2007	CHF 2,400,000	Pilot program in Donetsk and Rivne oblasts Program work in: Volyn and Ivano-Frankivsk oblasts	Ministry of Health
	Mother and Child Health Programme in Ukraine 2008–2010	N/A	Family Planning/ Reproductive Health	Promotion of mother and child health care services. Integrate perinatal care into maternal and child health services. Provide information on latest maternal and child health practices and technology. Improve the management of maternal and child health.	2008–2011	CHF 3,283,000	Volyn, Ivano-Frankivsk, Vinnytsia, Donetsk oblasts and AR Crimea	Ministry of Health National Medical Academy of Post-Graduate Education Oblasts and rayon departments of health Medical universities

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
	Implementation of the Strategic Approach to address policy, program, and research needs related to abortion and contraception in the Ukraine		Family Planning/ Reproductive Health	Assess clients' needs regarding abortion and contraception, and provide recommendations to decrease unintended pregnancy and stigma for abortion, improve abortion services, and develop equitable access to comprehensive abortion care.	2007–2010	CHF 700,000	Kyiv, Vinnitsa and Donetsk oblasts	Ministry of Health Family Planning Associations in Vinnitsa and Donetsk oblasts
Gesellschaft für Technische Zusammenarbeit (GTZ)	Reform of the Health System and Prevention of HIV/AIDS	N/A	HIV/AIDS	Advise the MOH in the fight against HIV/AIDS, and assist service providers working with people living with HIV/AIDS. Set up networks with the specific aim of unifying of advising the government, and completing trainings on HIV prevention activities for the public and NGO sector.	November 2006– October 2009		Central government level	Ministry of Health
	German-Ukrainian Partnership Initiative to Respond to HIV/AIDS	N/A	HIV/AIDS	Develop advisory and support relationships between German and Ukrainian organizations that target at-risk populations for HIV/AIDS. Advise the Ukrainian MOH on developing a national campaign to combat HIV/AIDS, including a work-study exchange between German and Ukrainian health officials to develop fundraising, campaigns, and monitoring and evaluation programming.	2008 to 2010		Western Ukraine and the Donetsk oblast	Ministry of Health

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
United Nations Children's Fund (UNICEF)	HIV/AIDS, Children and Youth Programme	N/A	HIV/AIDS	<p>Partnering with government partners to assure that national HIV/AIDS response observes the rights of the children and women living with HIV.</p> <p>Supporting health services that are youth-friendly, and monitoring the quality and accessibility of their services.</p> <p>Assisting the government and civil society to create a knowledge base of socially disadvantaged and vulnerable adolescents.</p> <p>Developing services that prevent youth from engaging in high-risk behavior, via improve life-skills trainings.</p> <p>Providing children and youth both in and out of school with the life skills they need to protect themselves from HIV infection.</p> <p>Preventing MTCT via improving the capacity of health care facilities.</p> <p>Advocate for antiretroviral therapy for women and children.</p>	Ongoing		Nationwide	<p>Ministry of Health</p> <p>Oblast and rayon health administration</p> <p>Civil society organizations</p>
	Child Health and Development Programme	N/A	Family Planning/Reproductive Health	<p>Implement the "Expanded Baby-Friendly Hospital Initiative" and use of Integrated Management of Childhood Illness (IMCI) approach, to improve quality an access to primary health care for mothers and children.</p>	Ongoing		National	Ministry of Health
World Health Organization (WHO)	HIV/AIDS	N/A	HIV/AIDS	<p>Develop a regular update of national guidelines, addressing antiretroviral therapy and opportunistic infections in adults and children, the prevention of mother to child transmission, and co-conditions such as drug dependence, TB, and hepatitis.</p> <p>Introduction of a patient monitoring system to better track HIV/AIDS treatment and improve patient care.</p> <p>Formation of a working group to elaborate a national hepatitis plan.</p> <p>Promoting the expansion of treatment programs for injecting drug users and access to STI care and hepatitis B vaccination.</p> <p>Creation of sufficient training opportunities and</p>	Ongoing		Central Government	<p>Foundation for Development of Ukraine</p> <p>USAID</p> <p>Global Fund</p> <p>Ministry of Health</p>



Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
				<p>running of Ministry of Health working group on human resources in HIV and TB care.</p> <p>Development of a national drug resistance strategy.</p> <p>Ensure the availability of reliable information on the HIV/AIDS epidemic.</p>				
	TB		TB	<p>Support implementation of the Stop TB Strategy on the national and regional levels.</p> <p>Develop the MDR-TB program.</p> <p>Introduction of TB/HIV collaborative activities.</p> <p>Consolidate the national TB laboratory network at all levels and introducing a quality assurance system.</p> <p>Identify and address critical health system barriers that impede efficient diagnosis, prevention, and/or treatment of drug-resistant TB in Ukraine, including the use of strategic information, health workforce planning, procurement and supply management, the role of primary health care in TB control, and financing.</p>	Ongoing		Dnipropetrovsk, Khersonska, Donetsk, Crimea	
	Family Planning	N/A	Family Planning/ Reproductive Health	<p>Development of training module for health care providers working with most-at-risk adolescents (MARA module).</p> <p>Initiation of comprehensive care of unwanted pregnancies.</p> <p>Conducted strategic assessment of policy, program, and research issues, related to unintended pregnancy in Ukraine.</p>	2007–2011		National	

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
World Bank	Technical assistance to the Government of Ukraine	World Bank		Since 2008, the World Bank has actively provided technical assistance to the Ukrainian government regarding health issues. Recent technical assistance includes working with government to collect data for the Health and Demography series, and discussing with government officials the significance of the data regarding Ukraine's mortality crisis. The World Bank wrote the 'health' chapter for the 2008 public finance report. In 2010, the World Bank provided and discussed with the government the contents of two World Bank papers regarding health reform, noting the preconditions for health reform pilots. The World Bank has also completed several public-private partnership presentations focusing on health reform issues for the Office of the President and Ministry of Health leadership, in 2010 and 2011.	2008–present		Central Government	
	Development of State Statistics System for Monitoring Social & Economic Transformation Project	World Bank		Building a sustainable state statistical system to provide timely and accurate data for policy evaluation and decision-making among national-level agencies.	July 2010–December 2012	\$4 million	National Level	Ministry of Finance Information and Communication Technology (ICT) system
	Tuberculosis and HIV/AIDS Control Project	N/A	TB; HIV/AIDS	Implemented a National Strategy for TB and HIV/AIDS adapted to World Standard. Project included: Training of TB specialists, laboratory technicians, GPs, epidemiologists, statisticians, and nurses in the detection and treatment of TB as well as in the proper monitoring and supervision of treatment and outcomes. Finance technical equipment provision and capacity for using equipment to improve TB and HIV diagnosis. This included an emphasis on prison populations. Finance first-line drugs for TB treatment,	December 2002–September 2009	\$43 million	National and Oblast Level, Prison System	Ministry of Health State Department of Prisons WHO, USAID, UNICEF, UNFPA Institute of Phthisiology and Pulmonology in Kiev

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
				<p>opportunistic infections for HIV, to prevent mother-to-child transmission.</p> <p>Mass media campaigns for TB and HIV prevention and treatment.</p> <p>HIV prevention campaigns targeting at-risk populations, especially in prisons.</p> <p>Monitoring and evaluation on TB and HIV incidence and prevalence rates, and treatment and prevention programs.</p> <p>Care and support for people living with HIV/AIDS.</p>				
United Nations Population Fund (UNFPA)	HIV/AIDS	N/A	Family Planning/ Reproductive Health	<p>Advising the government of Ukraine on national strategies concerning reproductive health, especially for strategy implementation, monitoring and evaluation, and establishing counseling services.</p> <p>Procuring and distributing contraceptives via local partners. This includes establishing social marketing for contraceptives.</p> <p>Integrating health services to be more collaborative and encompassing of reproductive health issues.</p> <p>Training journalists and health workers on reproductive rights, and the importance of reproductive health for the general public.</p> <p>UNFPA is an active player in the joint UN programme of HIV/AIDS prevention in Ukraine entitled "Act Now!"</p> <p>Works on HIV/STI prevention focusing on Army and Internal Forces, Police, and Border Guard.</p> <p>Through collaborative efforts with UNHCR and NGOs, provides reproductive health services to refugees living in Ukraine.</p>	Ongoing		Central government	<p>Ministry of Health</p> <p>Ministry of Education and Sciences</p> <p>Ministry of Defense</p> <p>Ministry of Internal Affairs</p> <p>State Statistics Committee</p> <p>Ministry for Family, Children and Youth</p> <p>Public Movement 'Faith, Hope, Love' (NGO)</p>
Red Cross	N/A	N/A	TB; HIV/AIDS	<p>HIV/AIDS and TB treatment and prevention.</p> <p>Implements care and home assistance programmes for people living with HIV/AIDS.</p>	Ongoing		Donetsk, Dnipropetrovsk, Odessa, Mykolaiv, Kherson, Zaporizhzhya, Poltava, Kharkiv,	MOH Network for People Living with HIV/AIDS

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
							Kirovograd, Kyiv, Zhytomyr, Chernigiv Oblasts, and Crimea	
Soros Foundation/ International Renaissance Foundation	International Harm Reduction Development Program	N/A	HIV/AIDS	Provides clean needle exchanges. Distributes condoms. Provides health commodities for HIV/AIDS services. Promotes the rights of people living with HIV/AIDS, and vulnerable populations. Works with the government and civil society organizations for legislation to limit drug trafficking concerning HIV/AIDS.	1999–present		Nationwide	Ministry of Health Network of people living with HIV/AIDS Civil society organizations AIDS Alliance of Ukraine
Clinton Foundation		N/A	HIV/AIDS	ART procurement and provision. Technical assistance on ART procurement and service delivery issues, and building the capacity of doctors to treat opportunistic infections. Providing diagnosis, treatment and care for injecting drug users in Dnipropetrovsk region only. Methadone maintenance program (300 patients) in Dnipropetrovsk oblast, concentrated in one region.	2004–present		Dnipropetrovsk (focus), nationwide	Ministry of Health Numerous NGOs
Joint United Nations Programme on HIV/AIDS (UNAIDS)			HIV/AIDS	Substitution maintenance therapy via methadone for injecting drug users. Monitoring and evaluation of HIV/AIDS (2008 evaluation helped with recent Ukraine health plans for HIV/AIDS.) HIV/AIDS awareness.			Nationwide	Ministry of Health Oblast health administration
United Nations Development Programme (UNDP)	Governance of HIV/AIDS in Ukraine		HIV/AIDS	Expand the capacity of governmental agencies in developing, initiating, planning, and managing HIV/AIDS programming, and AIDS response. Mainstream HIV/AIDS into the labor (nondiscrimination) and tourism sectors. Increase the capacity of regional authorities at the oblast, rayon, and municipal, and community levels to build competency in implementing HIV programming. Provide technical expertise and assist with monitoring of human rights of people affected	January 2005–December 2010	US\$1,860,347	Kharkiv, Mykolaiv, Kherson, Dnipropetrovsk, Lugansk, Ivano-Frankivsk, Poltava Chernihiv, Mykolayiv, Donetsk, Odessa, Zaporizhia, Khmelnytskyi, and Crimea	Government Ministries of Family, Youth and Sport; Labour and Social Policy; Culture and Tourism; Education and Science Public Employment Service Parliament of Ukraine

Donor	Project Name	Implementing Agent	Field of Intervention	Activities	Time and Duration	Amount of Commitment	Project Location	Counterpart
				by HIV.				Local Councils and Administrations, Social Services for Youth HIV/AIDS Centers Network of PLWH of Ukraine International HIV/AIDS Alliance in Ukraine Coalition of HIV-service organizations Penitentiary Network of Ukraine
	HIV/STI Prevention among Uniformed Services in Ukraine		HIV/AIDS	Initiate a continuing education program on HIV/STI prevention, life skills/safe behavior, and healthy lifestyle promotion for Ukrainian military, security, and police forces. Promote HIV/STI testing, VCT services for uniformed services	January 2005–September 2009	\$2.9 million	Nationwide	Ministry of Defense Ministry of the Internal Affairs Internal Forces State Border Patrol Guard Service of Ukraine
International HIV/AIDS Alliance-Ukraine	N/A		HIV/AIDS	Manage and administer the Global Fund Rounds 1 and 6, including the procurement of ARVs, training of medical staff involved in providing treatment, care and support services; provision of prevention services; supporting necessary improvements of the national epidemiological surveillance system.  Will act as a principle recipient of the Global Fund Round 10. Diagnostic and treatment of STI among at-risk populations. Increasing availability of HIV/AIDS data for analysis. Providing small grants to community-based HIV/AIDS organizations.	2000–2009 as Int'l HIV/AIDS Alliance 2009–present, independent organization International HIV/AIDS Alliance in Ukraine		Nationwide	Ukrainian AIDS Center Ministry of Health Soros Foundation Network of People Living with HIV/AIDS
The Elena Franchuk "ANTIAIDS"	N/A	N/A	HIV/AIDS	Media and communication campaigns regarding HIV/AIDS. Support to people living with HIV/AIDS.	2004–present	\$7.5 million		Ministry of Health Clinton Foundation Dnepropetrovsk

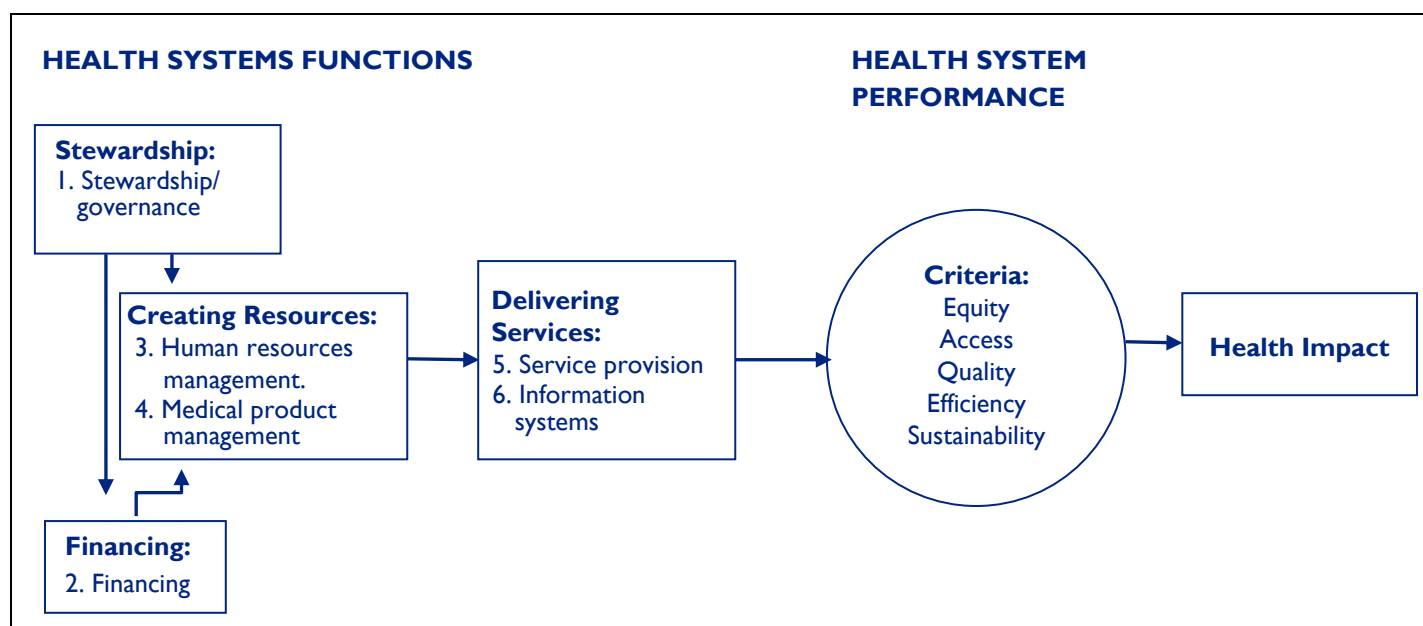
<b>Donor</b>	<b>Project Name</b>	<b>Implementing Agent</b>	<b>Field of Intervention</b>	<b>Activities</b>	<b>Time and Duration</b>	<b>Amount of Commitment</b>	<b>Project Location</b>	<b>Counterpart</b>
Foundation				Mobile clinics to provide health services to people living with HIV/AIDS. Grants to doctors to gain medicine to treat AIDS patients. Involve the private sector in HIV/AIDS prevention, care, and treatment. Support Clinton Foundation and ARV provision. Assistance to HIV-positive orphans.				oblast Medcom Ukraine Network of People Living with HIV/AIDS
The Victor Pinchuk Foundation	Cradles of Hope		HIV/AIDS	Developing a network of neonatal centers throughout the country, with state-of-the-art medical equipment and well-trained medical staff. Training physicians on neonatal care. Support ARV procurement and provision by the Clinton Foundation.	2006–present			Ministry of Health Clinton Foundation Kyiv Oblast Health Administration
Substance Abuse and AIDS Prevention Foundation (SAAPF)	N/A		HIV/AIDS	Provide prophylaxis and programs to limit drug addiction and HIV/AIDS. Provide psychological and counseling to people living with HIV/AIDS and drug users.				Ministry of Health Elena Franchuk Foundation

# ANNEX B: METHODOLOGY

## THE HEALTH SYSTEMS ASSESSMENT APPROACH

This assessment was adapted from the USAID *Health Systems Assessment Approach: A How-to Manual* (Islam, 2007), which has been applied in more than 20 countries. The HSA Approach is based on the WHO health systems framework of the six health system building blocks (WHO, 2000) (see Figure B.1). The assessment methodology consists of an analysis of the country's performance according to a set of internationally recognized indicators carried out through a review of available literature and statistics, key informant interviews, field visits to gain further information and data, and a stakeholder meeting to validate findings and review recommendations.

**FIGURE B.1. HEALTH SYSTEMS 20/20 HEALTH SYSTEMS ASSESSMENT FRAMEWORK**



As a rapid assessment, the Ukraine HSA team did not collect primary quantitative data but rather consolidated and analyzed the available data across all components of the health system to assess how the system is performing overall and to identify obstacles and opportunities that cut across multiple system components.

This approach was adapted to the specific expectations of USAID/Ukraine in 2011 as documented in the team's scope of work.

## PHASE I: DOCUMENT REVIEW AND INTERVIEWS

The first phase of the Ukraine HSA consisted of desk research. Background documents (see Annex E) about Ukraine's health system and HIV/AIDS, TB, family planning programs were identified via Internet research, recommendations from USAID/Ukraine, and key informants contacted prior to the visit to Ukraine. Additionally, data for over 80 indicators from WHO, World Bank, Demographic and Health Survey (DHS), UNICEF, UNAIDS, and other international sources were compiled via the Health

Systems Database ([www.healthsystems2020.org](http://www.healthsystems2020.org)). These data included benchmark averages for a regional comparison group, the countries that were formerly co-republics under the Soviet Union, and now are members of the CIS and the EU. In various sections of the report there are direct health data comparisons between Ukraine and selected countries, namely Belarus, Hungary, Moldova, Poland, Romania, Russia, and Slovakia.

The assessment team held multiple consultations with USAID/Ukraine to develop priority areas of interest for the HSA, identify key informants and logistics advisors, and select oblasts for site visits. Additionally, the team spoke with USAID/Washington's E&E office regarding health issues in Ukraine.

The assessment team's Technical Coordinator traveled to Kiev, February 13–19, 2011, to assist with the logistical set-up of the health system assessment. This included meeting with USAID/Ukraine, to update the mission on the HSA's development and coordination, introduce the team and request meetings with Ukrainian government (at the national, oblast, and rayon levels) and United Nations officials, and confirm the scope of work. Through meetings with USAID/Ukraine, and several key informants, the assessment team developed a list of key organizations with whom to meet in Ukraine.

## PHASE 2: IN-COUNTRY

From February 28–March 18, 2011, the assessment team interviewed numerous stakeholders at the national, oblast, rayon, and facility levels. Responses were hand-recorded by the interviewer in notebooks, typed and disseminated to team members, and examined for identification of patterns across stakeholders. The team also collected further documents and relevant data from various sources.

The team visited health care facilities and public health authorities in two oblasts (Lviv and Dnipropetrovsk), the city of Kiev, and in two rayons (Brovary and Novomoskovsky). The assessment team also met advisors to the Prime Minister, MOH representatives, and the First Deputy Chief of the Presidential Administration and other members of the President's Committee on Economic Reform.

In total, the assessment team met with over 74 stakeholders, including

- National government representatives, including six offices within the MOH
- Numerous health care facilities and health administration representatives at the oblast, rayon, and municipality levels
- International organizations, donor agencies, and foundations
- Health NGOs and professional associations
- Private sector health care providers (including a laboratory and private clinic)

A full list of meeting contacts and their organization is found in Annex D.

## ANALYSIS AND RECOMMENDATION CRITERIA

The assessment team used a number of criteria for prioritizing key findings and opportunities and developing ideas for action:

- Reflects the SWOT analyses of the six building blocks
- Informs the Partnership Framework between the Government of the United States of America and the Cabinet of Ministers of Ukraine
- Impacts equity, access, quality, efficiency, and/or sustainability of health care delivery
- System-focused (as opposed to programmatic) and preferably cross-cutting (i.e., across health system building blocks)



- Feasible in short term and essential in long term
- Positively impacts the delivery of services related to HIV, TB, and/or FP/RH

After tabulating the key issues affecting each of the health system components, the assessment team analyzed the cross-cutting issues that impacted the system most extensively. During the week of March 15, the assessment team presented the preliminary findings and recommendations to USAID/Ukraine, to Mr. Nikolay Petrenko, Advisor to the Prime Minister, and to key staff at the MOH and the Cabinet of Ministers' Health Care Secretariat. Preliminary HSA findings and recommendations were presented at stakeholder workshop on March 17, where representatives from international and Ukrainian institutions and organizations were afforded the opportunity to react and provide input to the assessment findings. See Annex C for the Stakeholder Workshop Agenda and Participant List.



# ANNEX C: STAKEHOLDER WORKSHOP

## C.I. AGENDA FROM STAKEHOLDER MEETING



### **Strengthening the Health System of Ukraine: USAID Health System Assessment Presentation**

Thursday, March 17, 2011

2:00 – 4:00 PM

USAID will host a meeting to review initial findings from the 2011 Health System Assessment and discuss recommendations for USG and the Government of Ukraine as they are developing their strategies for Ukraine's health sector.

This Assessment will:

- Review recent data on health indicators and the health system
- Identify areas of opportunities and successful strategies
- Identify the continuing challenges to strengthening Ukraine's Health System, with particular attention to: health financing, human resources, service delivery, health information systems (HIS), pharmaceutical and medical supplies
- Assess how the systems of delivery of HIV/AIDS, Tuberculosis, and family planning services are impacted by the system
- Develop recommendations to help inform the Government of Ukraine's development of the health reform strategy and USG/Ukraine's integrated health strategy

### **Agenda**

2:00-2:15	Coffee and registration
2:15 – 2:30	Welcome from Government of Ukraine and USAID
2:30 – 2:45	Overview of objectives and agenda Introductions
2:45 – 3:15	Presentation of Health System Assessment Findings Methodology Key Findings Recommendations
3:15 – 4:00	Questions and discussion

## C.2. LIST OF STAKEHOLDER MEETING ATTENDEES

Name	Office or Organization	Position
Oleg Musiy	All-Ukrainian Physician Society (NGO)	President
Irina Grishayeva	Clinton Health Access Initiative	Country Director
Natalia Kozhan	Foundation for the Development of Ukraine	Doctor, STOP TB Program
Andriy Huk	Futures Group	Director
Lisa Tarantino	Health Systems 20/20	Ukraine HSA Team Leader
Slavea Chankova	Health Systems 20/20	Assessment Team Member
Elizabeth Preble	Health Systems 20/20	Assessment Team Member
Mykola Prodanchuk	Institute of Ecohygiene and Toxicology, Ministry of Health	Director
Eliot Perlman	International HIV/AIDS and TB Institute	Director
Zahedul Islam	International HIV/AIDS Alliance	
Paola Pavlenko	International HIV/AIDS Alliance	
Olena Kucheruk	Soros /International Renaissance Foundation	Public Health Program Manager
Laurentiu Stan	JSI	Project Director
Iryna Kravchenko	Kyiv Oblast Administration	Adviser
Olha Gvozdetska	Network for People Living with HIV/AIDS	
Anna Koshykova	Network for People Living with HIV/AIDS	
Volodymyr Kurpita	Network for People Living with HIV/AIDS	Director
Volodymyr Zhovtak	Network for People Living with HIV/AIDS	President
Mykola Balash	Social Services State Department	Manager
Olexandr Fedko	Ukrainian Center for HIV, Tuberculosis and Other Socially Significant Diseases	Head
Mykola Gagarkin	Ukrainian Penitentiary Network	
Pavlo Zamostian	UNFPA	Deputy Country Representative
Valentina Ocheretenko	Union of Patients' Rights' Protection "Health of the Nation"	Director
Enilda Martin	USAID	Population, Health and Nutrition Officer
Paolo Belli	World Bank	Head of Health Team
Ihor Pokanevych	World Health Organization	Manager

# ANNEX D: CONTACTS LIST

Office or Organization	Name	Position
<b>Government and Administration</b>		
Administration of the President of Ukraine	Elena (Lena) Osinkina	Coordinator of the Presidential Committee on Economic Reform's health reform activities
Administration of the President of Ukraine	Irina Akimova	First Deputy Head of Administration for the President of Ukraine and Deputy of the Sixth Verkhovna Rada, and Executive Secretary of the State Economic Reform Committee
Cabinet of Ministers	Yuriy Anistratenko	Staff member
Cabinet of Ministers	Nikolay Petrenko	Adviser to Prime Minister
Cabinet of Ministers	Nikolay Prodanchuk	Director of Institution of Ecohygiene and Toxicology MH, Advisor of Minister of Health
Cabinet of Ministers	Vladimir Yurchenko	Advisor of Minister of Health
Cabinet of Ministers	Ivan Lukasevich	Head of Health Care Department of Cabinet of Ministers Secretariat
Department of Administration and Quality Control of Medical Services	Tetiana Gazhama	Acting Head of Department
Department of Regulatory Policy	Valeriy Stetsiv	Director
Development of Ukraine Foundation	Tetiana Biluk	Director of Stop TB Programme
Dnipropetrovsk Oblast Clinical Treatment and Prevention Association	Elena Vitalievna	Deputy Director
Dnipropetrovsk Oblast Financial Administration	Stanislav Viktorovych Molokov	Deputy Head
Dnipropetrovsk Oblast Health Care Administration	Valentyna Ginzburg	Head of Health Care Department
Dnipropetrovsk Oblast Health Care Administration	Viktoriya Viktorivna Kulyk	Deputy Head
Dnipropetrovsk Oblast Health Care Administration	Leonid Vladimirovych Ginmur	Deputy Head
Kyiv Oblast State Administration	Tetiana Leontiyivna Podashevskaya	Vice-Chief
Kyiv Oblast State Administration	Iryna Volodymyrivna Kravchenko	Advisor for Vice-Governor
Ministry of Health	Mykhailo Piatnytskyi	Senior Specialist of the Department of Science & Education
Ministry of Health	Mikhail Strelnikov	Head of Unit of Emergency Care of Department of Medical Service
Ministry of Health	Olexandr Anishchenko	First Deputy Minister of Health

<b>Office or Organization</b>	<b>Name</b>	<b>Position</b>
Ministry of Health	Mykola Pyatyborshch	Senior Specialist of Department of Medical Care Development
Ministry of Health	Oleg Levytsky	Head of Department of Economics, Finance and Accounting
Ministry of Health	Rostyslav Lykhotop	Head of Strategic Planning and Analytical Support Administration
Ministry of Health	Viktoria Sheveliova	Senior Specialist of International Department
Ministry of Health	Oleksandr Fedko	Head of State Administration (Service) of Ukraine on HIV and Other Social Dangerous Diseases
Ministry of Health	Tatiana Starcha	Senior Specialist of Department of Personnel Policy and Preventing Corruption
Ministry of Health	Mykhailo Golubchykov	Chief of Medical Statistics Centre
Ministry of Health	Anatoliy Kolisnyk	Senior Specialist of Health Care Department of Cabinet of Ministers Secretariat
National Academy of Post Graduate Education	Nina Goida	Vice-Rector of NMAPE after Shupik
National Academy of Post Graduate Education	Anatoliy Kosakovskiy	Vice-Rector of International Relations and Scientific-Pedagogical Work Department
National Academy of Post Graduate Education	Olexandr Klymenko	Chief of International Relations Department
Novomoskovsk Administration	Irina Serghyevna Kalyuzhna	Deputy Mayor
Parliament of Ukraine	Volodymyr Rudyi	Head of Secretariat of HC Committee
Social Services State Department	Nataliya Lukyanova	Director
State Committee of Statistic	Iryna Kalachova	
Ukrainian AIDS Center - Ministry of Health	Natalia Nizova	Director
Ukrainian AIDS Center - Ministry of Health	Liudmyla Storozhuk	Deputy Director
Ukrainian Institution of Strategy Research for Ministry of Health	Gennadiy Slabkiy	Director

#### **International Organizations and Donors**

CDC	Chuck Vitek	Country Coordinator
Clinton Health Access Initiative	Irina Grishayeva	Country Director
Futures Group	Andriy Huk	Country Director
Futures Group	Nicole Judice	Technical Advisor
Futures Group	Olena Zaglada	Consultant
GTZ	Anne-Laura Rhein	Deputy Team Leader
GTZ	Martin Kade	Team Leader
International HIV/AIDS and TB Institute	Eliot Perlman	Director
IRF (Soros Foundation)	Viktoriya Tymoshevskya	Public Health Program Director
JSI	Viktor Galayda	Project Consultant

Office or Organization	Name	Position
JSI	Laurentiu Stan	Project Director
JSI	Nadiya Salo	Deputy Chief of Party
JSI	Nataliya Karbowska	Deputy Chief of Party
MSH	Danylo Kalnyk	Supply Chain Manager
PATH	Olena Radziewska	Deputy Director
UNAIDS	Alexei Ilnitski	Monitoring and Evaluation Adviser
UNAIDS	Anna Shakarishvili	Country Coordinator in Ukraine
UNFPA	Nuzhat Ehsan	Country Coordinator
UNFPA	Pavlo Zamostian	Assistant Representative
UNICEF	Tetyana Tarasova	HIV/AIDS Officer
USAID	Eni Martin	Population, Health and Nutrition Officer
USAID	Mai Hijazi	Health Development Officer
USAID	Oleksander Cherkas	Senior Social and Health Advisor
USAID	Harriet Destler	Acting Health Director
WHO	Igor Pokanevich	Country Director
WHO	Ihor Perehinets	Technical Officer
World Bank	Paolo Belli	Country Sector Coordinator, Ukraine, Belarus, and Moldova

#### Health Care Facilities

Brovary Central Rayon Hospital	Valentyn Vitaliyovych Bahniuk	Chief Physician
Brovary Central Rayon Hospital	Natalia Pavlivna Voloshyna	Deputy of Chief Physician on Children's Issues
Centre for Rehabilitation and Resocialization of Alcohol and Drug Addicted Youth «For the right to live»	Maksym Oleksandrovych Kravchenko	Director
Dnipropetrovsk City Center for Prevention and Combating AIDS	Iryna Chukhalova	Chief Physician
Dnipropetrovsk Family Planning Centre	Svitlana Gennadiivna Bondarenko	
Dnipropetrovsk Oblast Clinical Treatment and Prevention Association	Dmytro Kryzhanovsky	Director
Dnipropetrovsk Perinatal Centre Maternity Hospital	Liudmila Ivanivna Padalka	Chief Doctor
Kyiv Oblast anti-tuberculosis dispensary	Vasyl Petrovych Shurypa	Chief Physician
Kyiv Oblast Centre for Mother and Child Health Care	Larysa Andriyivna Zhuravliova	Chief Physician
Kyiv Oblast Centre for Prevention and Counteraction to HIV/AIDS	Maryna Yaroslavivna Slobodyanyk	Chief Physician
Kyiv Oblast Centre of Social Services for Family, Children, and Youth	Nataliya Petrivna Rudko	Director
Lviv AIDS Center	Maryana Sluzhynska	Chief of staff

Office or Organization	Name	Position
Novomoskovsk Central District Hospital/Cabinet of Trust (VCT and ART unit)	Anatoliy Mazur	Chief Doctor
Novomoskovsk City AIDS Centre	Natalia Nikolayevna Dubrovina	Doctor
<b>NGOs, Private Health Providers, and Associations</b>		
Adanit Service	Vladimir Matviychuk	Transport Department Manager
All-Ukrainian Charity Foundation “The Coalition of HIV – Service Organizations”	Natalia Pidlisna	Executive Director
All-Ukrainian Network of PLWH	Olga Gvozdets'ka	Program Department Director
All-Ukrainian Network of PLWH	Yaroslav Blyaharskiy	Acting Head of Advocacy Department of Kiev office /Training Officer
All-Ukrainian Physician Society (NGO)	Oleg Musiy	President
Association of Pharmaceutical Research	Yuriy Savko	Executive Director
International Alliance for HIV/AIDS in Ukraine	Andriy Klepikov	Executive Director
International Alliance for HIV/AIDS in Ukraine	Anna Dovbakh	Head of Team on Advocacy and Policy Development
International Alliance for HIV/AIDS in Ukraine	Paolo Pavlenko	Senior Adviser
International Alliance for HIV/AIDS in Ukraine	Sergiy Filippovych	Head of Team on Treatment and Procurement
National P.L. Shupyk Medical Academy of Postgraduate Education	Anatolii Kosakovskiy	
Network for PLWHA	Volodymyr Kurpita	Executive Director
Network for PLWHA	Vladimir Zhovtiak	President
Network for PLWHA	Anna Koshykova	Acting Director of Procurement Department
Novomoskovsk DP Oblast NGO of Family Support Centre	Tatiana Pavlovna Asperova	Head
Novomoskovsk DP Oblast Perekrestok NGO	Larisa Viktorovna Borisenko	Head
Nurses Association	Galya Ivanivna Ivashko	President
Private Clinic Isilda	Andrea Turmasov	
Salus Foundation	Oleksandra Sluzhynska	President
Syvevo Laboratory	Mykola Skavronskiy	Managing Director
Syvevo Laboratory	Nikolay Skavronsky	Commercial Director
Ukr. Penitentiary Network	Mykola Gagarkin	Head
Ukrainian Medical Association	Oleh Musij	President
Women’s Health and Family Planning	Vladimir Bannikov	Executive Director



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