POLITICAL ECONOMY ANALYSIS OF THE HEALTH SYSTEM IN AZERBAIJAN: A LITERATURE REVIEW

Revised Draft

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AMSSW	Azerbaijan Monitoring Survey of Social Welfare
ASATID	Azerbaijan State Advanced Training Institute for Doctors
EXCOM	District Executive Committee (also known as District Executive Authorities)
GDP	Gross Domestic Product
HBSC	Health Behavior in School-Aged Children: World Health Organization Collaborative Cross-National
MCH	Maternal and Child Health
MHI	Mandatory Health Insurance
MOF	Azerbaijan Ministry of Finance
MOH	Azerbaijan Ministry of Health
NGO	Non-Governmental Organizations
OOP	Out-of-Pocket
PCHS	USAID Primary Care Health Strengthening Project
PEA	Applied Political Economic Analysis
PIO	Public International Organization
SAMHI	Azerbaijan State Agency for Mandatory Health Insurance
SSC	Azerbaijan State Statistics Committee
TABIB	Azerbaijani Management Union of Medical Territorial Units
UNDP	United Nations Development Program
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
USSR	Union of Soviet Socialist Republics
WHO	World Health Organization

INTRODUCTION

The right to health care is enshrined in article 41 of the Constitution and the 1997 Law on the Protection of Health of the Population, but the ability to ensure this right has been an evolving challenge for Azerbaijan.

Like others in the former Soviet Union, Azerbaijan inherited a large, inefficient system from the Union of Soviet Socialist Republics (USSR) after its independence. The reforms to Azerbaijan's health system, mostly covered in English-language literature, have been around the introduction of Mandatory Health Insurance (MHI) and support for primary care. However, other efforts have taken place in the areas of pharmaceuticals, surveillance and data collection, and around specific health issues such as tuberculosis control. From the literature, it appears that the main partner in reform efforts in the health care system have been international development organizations rather than local players such as civil society organizations, professional organizations, or patient advocacy groups. The international communities' support to the health care sector began in the urgent humanitarian response to the conflict with Armenia and large displacement of people in the early 1990s and gradually evolved to support the new state in an effort to improve the health care system in Azerbaijan.

The purpose of this literature review is to summarize the existing published and gray literature relevant to an Applied Political Economic Analysis (PEA) of the Health Sector in Azerbaijan and to broadly consider the question: Why does the health system in Azerbaijan function the way it does? The following pages will describe findings from the literature review related to the foundational factors, rules of the game, here and now, and dynamics (per the Applied PEA field guide) that shape the health sector in Azerbaijan.

AZERBAIJAN FALLING SHORT ON KEY INTERNATIONAL INDICATORS

Despite making significant progress over the past 15 years on key health indicators including life expectancy, maternal mortality, and infant mortality, Azerbaijan is still one of the lowest performers in the region on all three indicators and falls significantly short on regional averages of maternal and infant mortality[1]. Infant mortality is significantly higher than its neighboring Caucasus countries of Armenia and Georgia, who currently have similar GDP per capita. Azerbaijan also has one of the lowest percentages of health expenditure out of total government expenditures, an indicator of a government's historic low commitment to and prioritization of the health sector (Table 1).

[1] World Bank Open Data, https://data.worldbank.org/

Table 1: Health Indicators, per capita GDP, and percentage of total government expenditure on health in Azerbaijan and key comparison countries

	Life Expectancy (2019)	Estimated Maternal Mortality (2017) (per 100,000 live births)	Estimated Infant Mortality (2019) (per 1,000 live births)	GDP Per Capita in USD (2020)	Percentage of Total Government Expenditure on Health (2018)	Percentage of OOP* Costs out of Total Health Expenditure (2019)
Azerbaijan	73†	26†	18.2†	$4,214†	2.8%†	67.9%
Armenia	75.1	26†	10.5	$4,267	5.3%	84.8%†
Georgia	73.8	25	8.5	$4,279	10.3%	46.7%
Turkey	77.7	17	8.6	$8,538	9.3%	16.9%
Russia	73.1	17	4.9	$10,127	9.8%	36.5%
EU	81	6	3.3	$34,114	15.4%	15.5%
Europe & Central Asia	78	13	7.0	$23,878	15.2%	17.6%
Europe & Central Asia (excl high income states)	73.9	19	10.0	$7,657	9.9%	34.2%
United States	78.8	19	5.6	$63,544	22.5%	11.3%

Source: World Bank Open Data https://data.worldbank.org/

Notes: †Lowest performing country/ies in each category are highlighted in gray. *OOP stands for out-of-pocket

Azerbaijan also has some of the highest percentage of out-of-pocket (OOP) payments out of total health expenditures in the region. Since independence, patients have increasingly shouldered the costs of financing health care in Azerbaijan (World Bank, 2005; Ibrahimov et al., 2010; Bonilla et al., 2018). Data from 2019 show that OOP payments from patients accounted for 67.9 percent of all health expenditures in Azerbaijan[2] [See Table 1] and that up to 23 percent of households faced catastrophic health expenditures in a given year (Bonilla-Chacin et al., 2018). OOP costs and a lack of protection from catastrophic health expenditures creates barriers to accessing care in Azerbaijan, with outsized consequences for the most vulnerable (Bonilla-Chacin et al, 2018).

These poor health outcomes in comparison to other countries in the region signal that the reform efforts to date have either not been sufficient or have not been adequately implemented. Azerbaijan still faces a long climb towards improved health outcomes.

The literature review reveals a few key opportunities and several areas that warrant additional understanding. The role-out of current reform efforts and key changes of leadership after years of stagnation and failed attempts at reform signal potential opportunity for further engagement and a

[2] World Bank Open Data, 2021, https://data.worldbank.org/ [accessed Feb20, 2022]

possible inroad for USAID. However, the government healthcare system inherited many challenges from its Soviet predecessor, many of which it is trying to overcome at once with current reforms efforts. The COVID-19 pandemic and 2020 war in Nagorno-Karabakh have further exacerbated health systems weaknesses.

The analysis presented in this report reveal potential challenges to the roll-out of new health reforms efforts. Historical challenges include power differentials between different government actors, concern about loss of resources, and a need to engage multiple levels of stakeholders at the same time. There are also potential challenges at the individual level. For example, patients and providers will have to overcome a default preference for hospital-based or specialist care inherited from the Soviet health care system to properly optimize primary care. Additionally, the key players in health sector reforms must manage changes in responsibilities, a factor which has caused tension in the past.

The literature review identifies needs to increase access to essential health services in rural areas and amongst vulnerable populations, improve health education, address mismatches between the health workforce and needs of the population, and improve data collection and analysis for decision-making. It also identifies potential areas to support the successful roll-out of new reform efforts, which requires a major shift in how government healthcare is financed and how patients access care. Certain areas such as those related to data collection and analysis require extra consideration of the political and historical context that contributes to a culture of distrust in collection and sharing of information. Others may be less sensitive to engage, such as increasing access to essential health services in rural areas, but there is a precedent for these types of reform efforts to fall apart after international stakeholders discontinue their support.

The literature review only paints a partial picture of the factors that may influence USAID engagement in the health sector. Much of the literature included here discusses historical rather than current issues. The Mission will need to further consider why reforms were finally implemented when they were, who was/is involved and what role they play, and what broader factors may influence the success or failure of future engagements.

FOUNDATIONAL FACTORS

The foundational factors affecting Azerbaijan's health care system include its authoritarian "democratic" government, the Nagorno-Karabakh conflict, oil and gas economy, and the inherited Soviet health care system.

Freedom House defines Azerbaijan as a "consolidated authoritarian regime" (Denis, 2021). The same family, the Aliyev father and son, has occupied the presidency for about 30 years. The government consists of an executive branch—the President and his administration and a Cabinet of Ministers subordinate to the president, a legislative branch consisting of an elected National Assembly (*Milli Mejlis)* with 125 members, and the judicial branch. The *Milli Mejlis* and President are elected, but elections are not considered to be free or fair and the ruling Yeni Azerbaijan Party occupy the majority of seats (Denis, 2021; ODHIR, 2020).

In a study of the influence of authoritarianism on reforms processes, Gel'man & Starodubtsev (2016) note that authoritarianism itself does not necessarily hamper reforms efforts, but that in authoritarian governments, reforms processes are dependent on the figure in power, the functioning of the

government as a whole, and the broader socio-economic context at play. Although authoritarianism has negative consequences for human rights (Denis, 2020), the lack of competing political parties and ideologies and accountability to public opinion could in theory also simplify the pathway to difficult reforms that might not pass in a true democracy (Gel'man & Starodubtsev, 2016). However, the World Bank has cautioned that lack of opposing political thought can hinder the development and implementation of effective reforms (World Bank, 2005). Additionally, top-down reform directives without proper consultation with those who will implement reforms run the risk of being impractical or impossible to implement (Gel'man & Starodubtsev, 2016).

Gel'man & Starodubtsev (2016) use the example of Russia to suggest that other challenges inherent in this form of post-soviet government relate to the Cabinet of Ministers—that they are appointed based on relationships rather than "common policy goals and methods", that they both have very little autonomy and little oversight from the legislative branch, and that they each have a very narrow mandate to ensure the success of their own sector and line Ministry rather than the broader government as a whole. The World Bank (2005) noted the lack of judicial and legislative oversight over the President and Cabinet of Ministers as a hindrance to progress, with consequences for the health sector. The President can also use the Cabinet of Ministers system to shield himself and maintain popularity by shifting the blame for failures in a sector to the respective Minister (Gel'man & Starodubtsev, 2016). This threat likely has consequences for how Ministers interact with the President and each other within the Cabinet. Because Azerbaijan's modern authoritarian democracy grew out of the one from the Soviet Union, there is also a lack of culture or process for policy development that involves engaging the right stakeholders at the right time (World Bank, 2005).

Similar to the lack of change in presidential leadership, there have only been two Ministers of Health since 1993, excluding the current "Acting" Minister. Ahead of the elections in 2005, President Ilham Aliyev dismissed Ali Insanov, who had served in the position of Minister of Health under his father since 1993, amidst accusations that he had attempted a coup d'etat[3] and later imprisoned for embezzlement and bribery charges. His imprisonment was considered by opposition media and human rights organizations to be politically motivated.[4] President Aliyev then appointed a new Minister of Health, Ogtay Shiraliyev, who remained in his position for 15 years from 2005 to April 2021[5].

NAGORNO-KARABAKH CONFLICT

The Nagorno-Karabakh conflict has spanned four decades and two active wars resulting in considerable loss of life, casualties, and displacement of peoples. The first war ended in a cease-fire in 1994 after Azerbaijan had lost a significant portion of its internationally recognized territory to Armenia and ethnic Armenians. In the second war, Azerbaijan recovered the vast majority of its occupied territories, but the fighting ended in a Russian-brokered cease-fire rather than a peace agreement, which will likely continue to remain elusive (De Waal, 2021). The conflict's role in the national psyche and as a government priority cannot be understated. Since the early 90s, military spending has been between 8.5% to 14.5% of general government expenditure,[6] in comparison to the under 3% spent on health (Table 1). While the role of the conflict in relation to health care and health care financing is not fully explored in the

[3] https://humanrightshouse.org/articles/ministers-dismissed-before-election-in-azerbaijan/

[4] https://www.meydan.tv/en/article/azerbaijans-former-health-minister-set-to-establish-new-party/

[5] https://www.azernews.az/nation/178290.html

[6] https://data.worldbank.org/indicator/MS.MIL.XPND.ZS?locations=AZ

literature found for this review, we can assume that calculations regarding security and stability played a role in the allocation of budget to health and the political prioritization of the health sector and health sector reforms.

OIL AND GAS FUEL ACCESS DIVIDE

Azerbaijan's reliance on oil and gas as a main source of government financing means government resources to finance health care have fluctuated over the years (Ibrahimov et al., 2010). It has also created an environment, at least in the capital city, Baku, for private sector health facilities and providers to grow. Private clinics and hospitals began opening in Baku to serve the growing community of expat oil and gas workers, but district centers and rural areas outside of Baku did not benefit from the growth of Azerbaijan's private health care system (Ibrahimov et al., 2010). The oil boom in the mid-2000s led the government to make some large capital investments to build and renovate hospitals across Azerbaijan and invest in new diagnostic technologies (Ibrahimov et al., 2010). The successes of oil and gas and availability of new private clinics in Baku may have distracted the political elite from addressing very urgent needs in the public sector health system, particularly in rural areas (Ibrahimov et al., 2010).

THE OVERSIZED SHADOW OF THE SEMASHKO SYSTEM

Azerbaijan's Health System has a strong basis in the Soviet "Semashko" health system that existed prior to Azerbaijan's independence from the USSR. The Semashko system was highly centralized, hierarchical, and fragmented, and suffered from deep inefficiencies (Ibrahimov, et al. 2010; Footman & Richardson, 2014; Bonilla et al., 2016). Responsibility funneled down from the central government in Moscow, to the Republic Ministry of Health, to the oblast, and finally to *rayon* (district) health administration (Footman & Richardson, 2014). The central and republic government authorities made key decisions without opportunity for input from administrators of local clinics or health care providers interacting directly with patients and providers and administrators of facilities at the local level had minimal decision-making autonomy (Ibrahimov et al, 2010). This meant that resources and priorities were often set without a basis for the needs of the population (Footman & Richardson, 2014).

During the Soviet era, health and the Ministry of Health were deprioritized compared to other sectors and line Ministries, possibly due to a Marxist-Leninist philosophy that considered health to be "unproductive" and a benefactor of the productivity of other sectors, such as agriculture and industry, which generated income for the state (Davis, 2010). Functionally, this resulted in a hierarchy between ministries that gave the Ministry of Finance (MOF) a great deal of power and left the Ministry of Health (MOH) without much authority beyond policymaking (Ibrahimov et al, 2010; Footman & Richardson, 2014).

Like other former Soviet states, Azerbaijan inherited a vast physical and human resources infrastructure that far exceeded population need (Ibrahimov et al, 2010; Footman & Richardson, 2014; Karanikolos et al., 2014). It prioritized hospitals and hospital-based care over primary care, a concept which did not exist during the Soviet era (Ibrahimov et al., 2010; Bonilla et al, 2016). The excess in hospitals and hospital beds, demonstrated by historically low bed occupancy rates, burned significant resources in the already small state budget for health (World Bank, 2005; Ibrahimov et al., 2010). These inefficiencies put an extra burden on the health system at the start of independence, which was struggling to finance itself amidst the economic collapse and refugee crisis occasioned by the conflict with Armenia over Nagorno-Karabakh (World Bank, 2005; Ibrahimov et al., 2010).

Unlike in other countries in the region, Azerbaijan did not move to decentralize its health system after independence, keeping responsibility for financing the system to the central government (Footman & Richardson, 2014). It also maintained the same basic structure, but just consolidated power under the national-level MOH (World Bank, 2005). The Soviet system included city and central district hospitals, village hospitals, polyclinics (mainly in urban centers), and village health service points either staffed by a doctor or by paramedical professionals such as *feldshers* (a community health care worker who can provide basic health services) and midwives (Ibrahimov et al., 2014; Karanikolos et al., 2014). The MOH managed polyclinics and hospitals in Baku, the epidemiology and sanitary service, tertiary care hospitals, vertical state health programs and research institutes, but did not directly manage facilities outside of Baku (Ibrahimov et al., 2010). Instead of MOH, district Executive Committees (ExComs) managed the central district hospitals, which in turn managed the network of polyclinics, specialized clinics, and village hospitals in their districts. Municipalities, smaller governmental bodies elected by residents, managed village doctor and medical points and individual line ministries managed their own parallel health facilities for their employees (Ibrahimov et al, 2010), which remain in operation today. The fragmentation of public health facilities management at different levels created redundancies of responsibilities and diminished MOH's ability to enforce and steer policy and implementation under the Soviet Union (Footman & Richardson, 2014), an issue that persisted well after independence (Ibrahimov et al., 2014).

Similar to Semashko, the current health system in Azerbaijan consists of a network of clinics that provide general and specialist outpatient services and hospitals that provide outpatient, secondary, and tertiary inpatient services (Ibrahimov et al., 2010; Vatansever, 2021). The urban population accesses care through polyclinics and city- or central-district hospitals and the rural population accesses care through village clinics staffed by doctors and nurses or a village medical point staffed by a paramedical health care worker, depending on the population size and hospitals in district centers. The existing system of village hospitals became primary care facilities, and their inpatient services were transferred to central district hospitals as part of reforms towards a model of primary care (Ibrahimov et al., 2010, Vatansever, 2021).

The Semashko system operated under the principle of free access to healthcare for all, financed by taxes (Ibrahimov et al, 2010), but low wages for Soviet healthcare workers led to a tradition of informal payments for services (World Bank, 2005; Davis, 2010; Ibrahimov et al., 2010; Footman & Richardson, 2014).

During the Soviet era, the system became highly overinflated for the needs of its population, with too many doctors and beds per capita leading to inefficient use of funding (World Bank, 2005). In the aftermath of the original conflict with Armenia and economic collapse during the transition from communist to free market, the Azerbaijani government struggled to finance the large, unwieldy system (Ibrahimov et al., 2010). These early financial struggles particularly impacted health services in Azerbaijan's rural areas, with district hospitals, rural clinics and medical points falling into disrepair (Ibrahimov et al., 2010) and many doctors, nurses, or community healthcare workers leaving their professions or moving to Baku (Karanikolos et. al, 2014). This is further discussed in the next section: *Rules of the Game* – Health Work Force.

RULES OF THE GAME

Azerbaijan has made commitments to its people and the international community related to improving the health of its population and working to achieve universal health care. Azerbaijan is a member of the

Council of Europe and the United Nations and has signed on to the Sustainable Development Goals, including the goal to ensure healthy lives and promote well-being for all ages. The right to healthcare is enshrined in Article 47 of the Constitution and the Law on Protection of the Health of the Population (1997). Azerbaijan's *Development Concept "Azerbaijan - 2020: Vision for the Future"* includes ambitious objectives to improve primary care, improve medical education, and institute medical financing that better ensures access to health for all (Azerbaijan-2020, 2012).

Since its independence from the Soviet Union, Azerbaijan has adopted a long series of laws and concepts towards reforming the health sector (See Table 2).

Table 2: List of Key Legislation, Concepts, Plans and Decrees and Orders Related to the Health Sector Reforms in Azerbaijan*

1995	Article 41 of the Constitution guarantees the right to health and to receive health care
1997	Law on Protection of the Health of the Population (1997)
1998	State Commission on Health Reform 1998
1999	Law of the Republic of Azerbaijan "On Medical Insurance"
2000	Law on Private Medical Practice
2000	Law on Control of Tuberculosis
2000	Law on the Immunoprophylaxis of Infectious Diseases
2001	Law on Iodization of Salt for Mass Prevention of Iodine Deficiency
2003	Law on State Care for Persons with Diabetes
2005	Law on State Care for Persons with Haemophilia and Thalassaemia
2005	Law on Blood and Blood Component Donors and Blood Service
2006	Law on Oncology Care
2007	Presidential Decree Establishing State Agency for Mandatory Health Insurance
2008	Updated Concept of Health Care Reform
2008	Concept on Health Financing and Introduction of Mandatory Health Insurance
2009	Action Plan to Introduce Health Financing Reforms.
2015	Order of the President of the Republic of Azerbaijan No. 1474 dated October 27, 2015, Zaur Aliyev was appointed Director of the State Agency for Compulsory Medical Insurance under the Cabinet of Ministers of the Republic of Azerbaijan.
2016	Presidential Decree #765 establishing the charter for SAMHI

2017	Presidential Order appointing Zaur Aliyev as Chairman of the Board of the State Agency for Compulsory Medical Insurance of the Republic of Azerbaijan.
2018	Amendments to Mandatory Health Insurance Law. By Law No. 1441-VQD, dated 28 December 2018, effective 1 January 2020 for
2020	Decision No. 5 on medical services and tariffs for the Basics Benefits Package

*Source: Combined from Ibrahimov et al, 2010; the State Agency for Mandatory Health Insurance website, 2021; and the European Commission Twinning Fiche, 2021.

TECHNICAL OVERVIEW OF MANDATORY HEALTH INSURANCE IN AZERBAIJAN

In 2016, President Aliyev signed a decree beginning the operations of the State Agency for Mandatory Health Insurance (SAMHI), after years of little outward progress on financing reforms. SAMHI worked with WHO to plan pilots in the regions of Yevlakh, Mingechevir, and Agdash in 2017-2018, followed by a staged roll out to the rest of the country between January 2020 and April 2021. The Insurance Fund is financed partially by a 90 manat per capita commitment from the government and partially from mandatory 4 percent payroll contributions split between employee and employer. Those registered with the government as self-employed contribute 4 percent of the minimum wage, with proposed plans to supplement the fund with excise taxes (Aiypkhanova, 2021).

MHI envisions a significant shift away from the segmented Soviet model of specialized care towards one of more integrated primary care that would include prevention, screening for potential illnesses, and management of chronic diseases. MHI gives all citizens access to a basic benefits package (BBP) of covered care, the basis for which was set in 2007 under the "Mandatory Health Insurance" law. The insurance requires citizens to see a primary care doctor, who can refer to specialists as needed. SAMHI also has plans to roll out new Information Communications Technology infrastructure that would track patient interactions with the system, store health information, and provide patients access to results of diagnostic and screening tests (Aiypkhanova, 2021).

One risk pool for all citizens with set fees for services should protect the population against catastrophic health expenditures and increase the efficiency of the system through a "gatekeeper" mechanism requiring referrals to access more expensive specialty care (Bonilla-Chacin et al., 2018). MHI also increases efficiency by eliminating the Soviet model of allocating funds to health care providers based on inputs (numbers of beds, staff, etc.) and historical spending, instead paying hospital-based providers and specialists based on outputs (services provided to patients) and primary care facilities based on the number of people in the facility's catchment area (Bonilla-Chacin et al, 2018; Mirzeyev, 2009). A model of financing based on patient interactions with the health system and outputs, rather than historical levels of funding and inputs, should increase efficiencies in the system because it eliminates the incentive to maintain excess beds and staff or spend more than needed in order not to lose funding for the next year (Bonilla-Chacin et al., 2018; Ibrahimov et al., 2010; World Bank, 2005).

TENSIONS/CONFLICTS OF INTEREST BETWEEN DECISIONMAKERS

There is a complicated web of government actors involved in the health system. The majority of other actors in the health system literature are international development organizations, international financial institutions, and bilateral or multilateral donors.

Various Ministries and agencies have overlapping responsibilities for the financing and management of health which have complicated reform efforts in the past (See Table 3). The landscape has changed with the introduction of MHI, SAMHI, and its subordinate management structure the State Union of Medical Territorial Units (TABIB), but it is possible that historic tensions described below will play a role in the way that each entity interacts under the new system.

HISTORICAL TENSIONS: MOH VERSUS MOF, EXCOMS, MUNICIPALITIES, AND PARALLEL HEALTH FACILITIES

The flow of money through the government has been an important factor in the state health system politics and in reform efforts. There has been an inherited power tension between MOH, MOF, ExComs, and rural municipalities in terms of decision-making and administration of health financing. While MOH set the policy priorities for the country, because ExComs and municipalities outside of Baku received funding directly from the Ministry of Finance, MOH had much diminished powers of oversight and management of facilities outside of Baku (Ibrahimov et al, 2010). ExComs and rural municipalities received funds for health facilities in their districts directly from the MOF, bypassing MOH, and administered health facilities independently from MOH. The MOH only directly oversaw the management and budget for Baku-based government health facilities, including polyclinics covering primary care, hospitals, research institutes, as well as vertical state health programs (e.g. diabetes, tuberculosis, HIV/AIDS) (Ibrahimov et al., 2010). To complicate things further, individual line ministries including the State Customs Committee, State Railways, Ministry of Defense, Ministry of Internal Affairs, and Ministry of Emergency Situations, and State Oil Company managed a significant number of parallel health care services and facilities offered to their employees (Bonilla-Chacin et al, 2018).

MOF has traditionally made the determinations for all budget requests, making them a very important stakeholder in reform efforts (Ibrahimov et al, 2010). After the Prime Minister signs off on the line-by-line budgets presented by MOF, funds cannot be reallocated to other line items without an intensive reapproval process all the way up through the Prime Minister (Ibrahimov et al., 2010). Ibrahimov et al. (2010) cited a lack of engagement with MOF from the outset as one of the main reasons a primary care strengthening program approved by MOH and district ExComs failed to start (Ibrahimov et al, 2010). Whether or not these historic tensions will affect the way each of these entities interact with SAMHI/TABIB under the roll-out of MHI remains to be seen. (See Annex 1 for historic funding structure prior to the implementation of MHI).

"PRESERVE YOUR RESOURCES": PRIMARY CARE VERSUS STATE HEALTH PROGRAMS

The USAID Primary Care Health Strengthening Project (PCHS) provides a case study of possible complications of reforms from existing structures towards a more integrated system of primary health care, as envisioned under MHI (PCHS Yr 3, 2010). The project had advocated for the delegation of a large share of Tuberculosis (TB) case detection and treatment from specialized TB facilities under the National TB Service to primary care facilities/providers as part of the next iteration of the National TB Strategy. The TB Service opposed changes because it would have resulted in a major reduction in their role and a potential decrease in government funds leading to delay and to an impasse (PCHS Yr 3, 2010). The project describes overcoming this barrier by engaging the broader international development community (WHO, Global Fund, World Bank) in advocacy efforts with MOH. As of the project report, MOH had "promised" to include the shift towards greater case management at the primary care level in the 2010-2015 National TB Strategy (PCHS Yr 3, 2010). This case study exemplifies the "rule" enforced

by the MOF's historical, line-by-line budgeting system to protect limited resources by maintaining the status quo rather than moving towards a more efficient model of care. In theory, the MHI roll-out and establishment of a pay-for-service/capitation financing system with SAMHI as the purchaser of services should make this "rule" to preserve resources less relevant, particularly to administrators of hospitals, polyclinics and primary care facilities.

MOF VERSUS SAMHI/ MOH VERSUS TABIB - IMPLEMENTATION OF MANDATORY HEALTH INSURANCE (MHI)

The creation of a new agency—SAMHI and its subordinate management structure TABIB—has introduced another national government level player in health care governance whose role and place in relation to other important decision-makers in the health sector is being tested. Notably, during the pandemic SAMHI and TABIB and their leadership took on more public roles than the current Minister of Health Ogtay Shiraliyev or MOH.[7] The exact reasons behind this and the particular dynamic between SAMHI/TABIB and MOH have not been analyzed in the literature.

SAMHI, through the TABIB structure, consolidates some of the former complicated and rigid flow of money to government health care facilities described above. Instead of funneling through district or municipal authorities, SAMHI will "purchase services" directly for hospital and specialist care and use a form of capitation (or payment based on the number of people in the catchment area of a particular facility or provider) to pay primary care providers (European Commission, 2021). What is not entirely clear in the literature is the level of influence MOF may have in this new financing structure, but this is one of the topics that will be covered in a Twinning Project under the European Commission (2021).

The SAMHI/TABIB structure removes some, but not all of the management/flow-of-funding challenges from the former system. The formation of the SAMHI and TABIB included the transfer of management of most public sector health facilities to TABIB. For example, it appears TABIB absorbed most of the management of Baku polyclinics, hospitals, vertical state public health programs, and research institutes from the MOH, but that most other line ministries maintain control over their parallel health structures (SAMHI, n.d.-b). TABIB also took over management of health facilities formerly under the purview of ExComs and municipalities. It manages them through offices in 14 regional medical divisions established "on the basis of population number, geographical area, transport infrastructure, network and capability of medical facilities, the number of doctors and middle medical staff (SAMHI, n.d.-a)."[8] Given that there is precedence for efficiencies creating tensions between two parts of the government, the transfer of management between old (MOH, ExComs and Municipalities) and new (TABIB) was likely politically challenging. [see "Preserving Your Resources"]

THE ROAD TO REFORM CAN BE LONG AND REDUNDANT

While the government has long acknowledged the need for reforms in health sector financing and delivery on paper, the process of actually implementing those reforms has been halting, repetitive, (Ibrahimov et al, 2010; IEG ICR Review, 2014) and results have been mixed (IEG ICR Review, 2014;

[7] Institute for War and Peace Reporting. Azerbaijan's Healthcare Creaks Under Covid-19 Burden, https://iwpr.net/global-voices/azerbaijans-healthcare-creaks-under-covid-19-burden

[8] SAMHI [website], "Regional Medical Divisions, https://its.gov.az/page/regional-medical-divisions Accessed October 15, 2021

Bonilla-Chacin et al, 2018). For example, international development efforts including those from the World Bank's Health Sector Reform Projects and USAID Primary Health Care Strengthening Project in the mid-2000s resulted in a significant amount of drafting of policy documents and concepts for Mandatory Health Insurance (MHI), but stalled for nearly a decade in their full implementation (PHCS Year 2; IEG ICR Review, 2014), possibly due to a lack of understanding of the *Rules of the Game*.

The reform most discussed in the literature is the establishment of MHI. Its path from legislation to full-country roll-out has taken over 20 years. Examining its journey gives some insight into the *Rules of the Game* around reform efforts.

The National Assembly or *Milli Mejlis* passed the original law on "Mandatory Health Insurance" in 1999, establishing much of the legal basis for the current MHI including the concept of a basic benefits package (BBP) (Ibrahimov et al, 2010). However, President Heydar Aliyev vetoed the law until 2005, likely due to concern about destabilizing effects of the change (Mirzeyev, 2009). Hesitation over the potential destabilizing effects of major financing reforms led the MOH to hold off on financial restructuring in favor of more narrow reforms targeting specific diseases such as Tuberculosis (TB) or related to vaccinations (Law on Immunoprophylaxis) (Ibrahimov et al., 2010). It was not clear if the president or MOH were concerned about destabilizing effects on the population as a whole or on persons of influence who somehow benefited from the status quo.

International partners including USAID, Public International Organizations (PIOs), bilateral and multilateral donors, and international financial institutions (IFIs) have supported the government throughout its health systems reforms process – particularly on reforms to shift to a model of primary care and financing reforms (Ibrahimov et al., 2010; PHCS Year 2, 2009; PHCS Year 3, 2010; IEG ICR Review, 2014; Universal Health Coverage Partnership, 2021).

Major international development-related support developing the legislative and policy framework for a new health financing system and MHI began in the mid-2000s but stalled for many years in its implementation (Ibrahimov et al.,2010; IEG ICR Review, 2014). The main projects related to financing and MHI were the World Bank's Health Care Reform Projects (2001-2005) and (2006-2013) and USAID's Primary Health Care Strengthening Project (2007-2010). The projects worked together with WHO to engage both the MOH and MOF, and the Public Health Reforms Center under MOH to develop strategy documents, concepts, and plans for MHI and health financing implementation (PHCS Year 2, 2009; PHCS Year 3, 2010).

During that time of engagement in the mid-2000s between MOH and USAID, World Bank and WHO, President Aliyev issued the 2007 decree establishing the SAMHI and approved the 2008 Concept on Health Financing and Introduction of Mandatory Health Insurance; the Cabinet of Ministers subsequently approved the 2009 Action Plan to Introduce Health Financing Reforms (Ibrahimov et al., 2010).

After 2009, however, health financing reforms lost momentum. An independent review of World Bank's Health Care Reform Project rated the project's performance at meeting its stated objectives as "moderately unsatisfactory" noting,

> *"Health sector reforms are costly, time-consuming, and politically sensitive, requiring a significant amount of political economy analysis. In this case, the impact of political processes on health financing reforms was apparently underestimated, resulting in a stalling of t+he Basic Benefits Package and mandatory health insurance. Without a long-term perspective, any momentum gained in these areas is now likely lost (IEG ICR, 2014)."*

The independent reviewers also pointed to the lack of a "champion" to ensure progress on politically challenging reforms as the reason for stagnation "despite numerous policy papers, pieces of passed legislation, and related documents (IEG ICR, 2014), although this interpretation likely overstates the role of "champions" in comparison to broader incentives for systemic change.

After the failure to launch MHI, the World Bank stopped financing health systems activities (World Bank [website], 2021). USAID stopped its health programming in 2013 (USAID [website], 2021) due to circumstances not covered in the literature. WHO and its broad range of European Union partners remained engaged on primary care and health systems financing reforms through the Universal Health Coverage Partnership (Universal Health Coverage Partnership, 2021).

Table 3: Summary of Government Actors in the Health System

Ministry of Health	Broadly oversees human resources for the public sector health system as well as research and policy efforts and the sanitary-epidemiology service Used to manage all tertiary care facilities, state health programs, and polyclinics and hospitals in Baku which are now under TABIB Historically set policy direction for the country. Main government lead for reforms efforts. Has removed support for reforms that would take funding away from the Ministry.
State Agency for Mandatory Health Insurance (SAMHI)	Manages Insurance Fund and TABIB. The insurance fund is financed through a set $90 per capita contribution from the government and mandatory 2% contributions from both employees and employers. Rolling out ICT system for clinics and hospitals to register and track patients linked to an e-services system for patients to make payments, see laboratory and diagnostics results and make appointments. This has the potential to transform state health statistics. Created by recent reforms, may have more incentive to support reforms that make them successful
Management Union for Medical Territorial Units (TABIB)	Subordinate to SAMHI. Have regional offices that manage government health facilities in their territory Took a great deal of responsibility and oversight of health facilities (and likely budget) from MOH, district-level Executive Committees, and municipalities Have a mandate to improve quality of care for patients
Ministry of Economy and Taxation	State Tax Service supervises the calculation and payment of Mandatory insurance contributions (BM Morrison Partners LLC, 2021)

Ministry of Finance	Controls the budget allocations to different line ministries, including Ministry of Health, as well as to district-level Executive Committees and municipalities, giving it greater power in the hierarchy of government Ministries. Has a role in the collection of Mandatory Health Insurance contributions from citizens that is not fully defined. Will transfer State contributions to Health Insurance Fund.
Cabinet of Ministers	Involved at multiple stages in the process of moving from legislation to implementation. Can create bottlenecks to progress Unanswered: What is the role of personalities and relationships to President or Presidential Advisors?
President	Can initiate reforms quickly through Presidential decree. Multiple actions (signatures, decrees, orders) from President are often necessary to make progress on reforms. Could create bottlenecks.

Source: Author

Reforms reinitiated with a second Presidential Decree in 2016 establishing SAMHI again, followed by another decree approving SAMHI's charter in 2017 (SAMHI [website], 2021). President Aliyev appointed Zaur Aliyev Director of SAMHI in 2015 and then appointed him Chairman of SAMHI in 2017.[9,10] WHO, who had remained engaged, stepped in to engage international consultants to help SAMHI pilot MHI in three regions in Azerbaijan, and through its eventual roll-out to the entire country in April 2021, after a delay caused by the COVID-19 pandemic (Aiypkhanova, 2021). WHO and the European Commission continue to engage SAMHI on its roll-out, with a planned Twinning Project to help it work out potential issues in its first years of implementation (European Commission, 2021).

The literature review did not reveal the exact reasons for the stalls in implementation of MHI, but this case study points to several potential "rules of the game" when it comes to cooperation between the international development community and government towards more elaborate reforms efforts. The government—at the Ministry and/or Agency level—appears to recognize and welcomes technical assistance laying the groundwork for reforms, but ultimately the implementation of broader reforms efforts may involve multiple, seemingly redundant interventions at the highest levels of the executive branch. International partners may need to take a "long-term perspective" when working towards broader systems changes as suggested by the IEG ICR Review (2014).

"TOP-DOWN PRESSURE" AND LACK OF ACCESS TO HEALTH INFORMATION HINDERS PROGRESS

The Soviet era's tight control over information has persisted into modern Azerbaijan, with serious impacts on the health sector. The hierarchical approach to government management can inhibit the flow of information both from the bottom up and the top down. The *Health Systems in Transition* report by Ibrahimov et al (2010), a 2008 WHO assessment of data sources and reporting, noted serious discrepancies in data collected through representative household surveys and those collected via

[9] SAMHI website, https://its.gov.az/page/chairman, Accessed Oct 8, 2021

[10] The reasons behind the stall were not discussed in the literature, but notably, the restart coincided with the extreme fall of oil prices. Given the government's reliance on oil and gas to fund its budget, falling oil revenues would provide a strong incentive to take action to improve health financing.

national reporting procedures, calling into question the accuracy and validity of major health data/indicators collected and reported by the government of Azerbaijan. A 2020 WHO report stated, "Key informants voiced some concern about the reliability of vaccination coverage and mortality data," implying that the problem of data reliability persists into present day (WHO Regional Office for Europe, 2020). Discrepancies in data may be due to a combination of lack of training in international standards (Ibrahimov et al., 2010; Bonilla-Chacin et al., 2018) and top-down pressure to report only positive health data (World Bank, 2005; Ibrahimov et al., 2010). Lack of reliable and timely health statistics and a structure that allows for planning based on needs limits a countries' ability to accurately plan for the needs of its population (World Bank, 2005; WHO Regional Office for Europe, 2020). In the hierarchical governance structure of Azerbaijan, this means people are making decisions based on a view from above that looks a lot rosier than it should. WHO observes that the health information system also "lacks analytical capacity" and that the absence of disaggregated data by gender, socio-economic status, and rural/urban residence limits the ability to address critical equity issues (WHO Regional Office for Europe, 2020).

Data Accessibility: While the State Statistics Committee does have an online database that includes statistics on the health sector[11], these statistics are reported in separate excel files or PDFs and indicators are not always separated into standard categories making any attempt to dig into the publicly available data for answers. This inhibits citizens, academics, civil society organizations and policymakers' ability to use the data effectively for research and decision-making. Reports cited in this literature review (World Bank, 2005; Bonilla-Chacin et al, 2018; Ibrahimov et al, 2010) used a large amount of unpublished data provided to them by the MOH, MOF, or other areas of the government. Access to this information is highly dependent on relationships. There are a limited number of English-language documents and reports on data collection efforts by the government, which could limit ability of international donor organizations or implementers in benefiting from efforts made by the government to improve its understanding of the health sector in Azerbaijan. Many of these reports are housed within a list of documents on the website of the Azerbaijan Public Health and Reforms Center (PHRC)[12] within the MOH. Reports are listed in chronological order, without separation by language or categorization, on a website with clunky search features. In practice this means that the public or other independent researchers, including NGOs and professional and health issues-based associations, have to know that a report on a given topic exists in order to find it. This in turn limits the ability of independent voices to contribute to policy discussions and decision-making around health issues or push the needle forward on innovative approaches to improving health outcomes, access to care, or quality of care.

Attempts to address issues around data collection, information sharing, and transparency through reforms and investment in the Health Information System (HIS) may be hindered by "a lack of political demand for an integrated HIS that would feed into policy- and decision-making processes at the strategic and operational levels" (WHO Regional Office for Europe, 2020).

[11] State Statistics Committee [Website], *Health, social protection, sports*. https://www.stat.gov.az/source/healthcare/?lang=az

[12] Public Health and Reforms Center [website]. Documents. Accessed October 24, 2021. https://isim.az/en/docs/31/1/

WILL MHI IMPROVE ACCESS TO CARE?

The rules of the game have shifted significantly since the introduction of MHI in April 2021. Now all citizens have access to a "Basic Benefits Package" that includes emergency and urgent medical care, primary health care, outpatient care, inpatient care, laboratory and diagnostic services, physiotherapy, invasive radiology, and vital surgeries.[13] Guaranteed access to basic services with set fees for service protects against the risk of catastrophic health expenditures and reduces official out-of-pocket (OOP) expenses, which could increase access and utilization of the health system (Bonilla-Chacin et al, 2018). But increasing access to quality care and utilization depends on a variety of other factors in addition to covered services.

FORMAL AND INFORMAL OUT-OF-POCKET (OOP) COSTS

Prior to the roll-out of MHI, Azerbaijan had the highest percentage of Out-of-Pocket (OOP) expenditures out of total health expenditures in the region (See Figure 1). In 2019, OOP costs accounted for 67.9 percent of health expenditure in Azerbaijan compared to the European Union average of 15.6 percent (World Bank, 2022 - Open Data [database]).[14] The main drivers of high OOP costs in Azerbaijan have been the prices of pharmaceuticals and fees for diagnostics, but the practice of "informal gifts" to medical providers in exchange for care is also a significant contributor (Ibrahimov et al., 2010; Bonilla-Chacin et al., 2018). Informal payments to medical providers were common during the Soviet period (World Bank, 2005; Karanikolos et al., 2014). The tradition became even more ingrained in the aftermath of independence when the inability of MOH to pay healthcare providers meant that doctors and nurses needed to supplement their salaries with informal payments or gifts from patients (Ibrahimov et al., 2010). Assessments over the years including the 2015 AMSSW (as cited in Bonilla-Chacin et al., 2018) as well as more recent assessments conducted by WHO experts (WHO Regional Office for Europe, 2020; Vatansever et al., 2021) have found that this tradition of "informal payments" has persisted into current day.

The incentives driving informal payments appear to still exist. Salaries for doctors have continued to remain low – they were only 74 percent of the average monthly salary in Azerbaijan in 2020 (SSC, 2021b – Table 4.3 Level of average monthly nominal wages and salaries by economic activities). Although health care worker salaries are planned to increase under MHI (as reported in WHO Regional Office for Europe, 2020), it is not clear if they will increase enough to overcome such a longstanding "tradition" in the public sector health system. The literature did not include other types of incentives or disincentives to eliminate "informal payments."

The role of private sector providers in driving the share of OOP expenses is not fully explored in the literature. As of 2018, there were over 500 private health care facilities in Azerbaijan (Bonilla-Chacin et al., 2018). There is evidence that in addition to higher costs of services, private providers may overuse diagnostic procedures in order to increase their revenues (Ibrahimov et al., 2010), driving up costs for patients. Ibrahimov et al (2010) believed that private sector health costs were likely not well captured by World Bank data and so it is hard to fully understand the role of private sector health services providers in driving up OOP costs in Azerbaijan. However, the 2015 AMSSW found the highest incidence of catastrophic health expenditures amongst the three wealthiest income deciles, which could both indicate

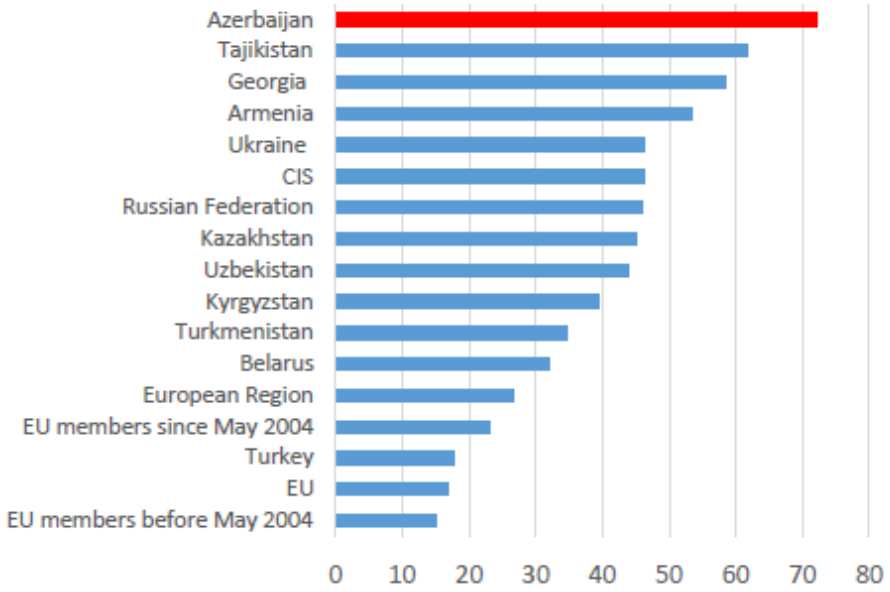
[13] https://its.gov.az/page/xidmetler-zerfi-2

[14] https://data.worldbank.org/indicator/SH.XPD.OOPC.CH.ZS?locations=AZ-EU

very high costs in private sector facilities or that lower income deciles are not seeking care for very serious illnesses (Bonilla-Chacin et al., 2018).

High OOP costs create barriers to accessing care. The Azerbaijan Demographic and Health Survey (DHS) 2011 found that the most commonly identified barrier to accessing care amongst women was finding money for treatment (Public Health and Reforms Center, 2013). Health utilization data by income quintile show that lower income groups utilize the system less, possibly due to lower ability to pay OOP costs (Bonilla-Chacin et al., 2018).

Figure 1: Household Out-of-Pocket Health Expenditure as Percentage of Total Health Expenditure, 2014*



*Source: Figure taken from Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. (2018) *Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan*. Universal Health Care Coverage Series 28. Washington, DC: World Bank Group, pg. 16. Copyright Bonilla-Chacin et al., 2018.

Note: CIS = Commonwealth of Independent States; EU = European Union

RURAL ACCESS

Addressing OOP expenses can increase equitable access to care amongst vulnerable populations, but it is only one of many issues affecting access to care in Azerbaijan. Access is of particular concern in rural areas. Rural women are more likely to report barriers accessing care (Bonilla-Chacin, 2018). During WHO-led focus groups conducted in 2020, health care workers reported that many rural clinics and medical points in the Shamakhi area lacked key medical equipment, access to central water and electricity, and had fallen into disrepair (Vatansever et al., 2021). In a recent press release, WHO highlighted the problem of non-functioning health facilities due to staffing shortages and poor infrastructure, writing, "*The shortage of physicians in rural areas has worsened through a combination of low salaries and existing physicians retiring and not being replaced. Only 8% of all primary health care facilities have a central water supply. As a result, primary health care facilities and services in rural areas are either not operating or are rarely used by the community (WHO Regional Office for Europe, 2021a).*"

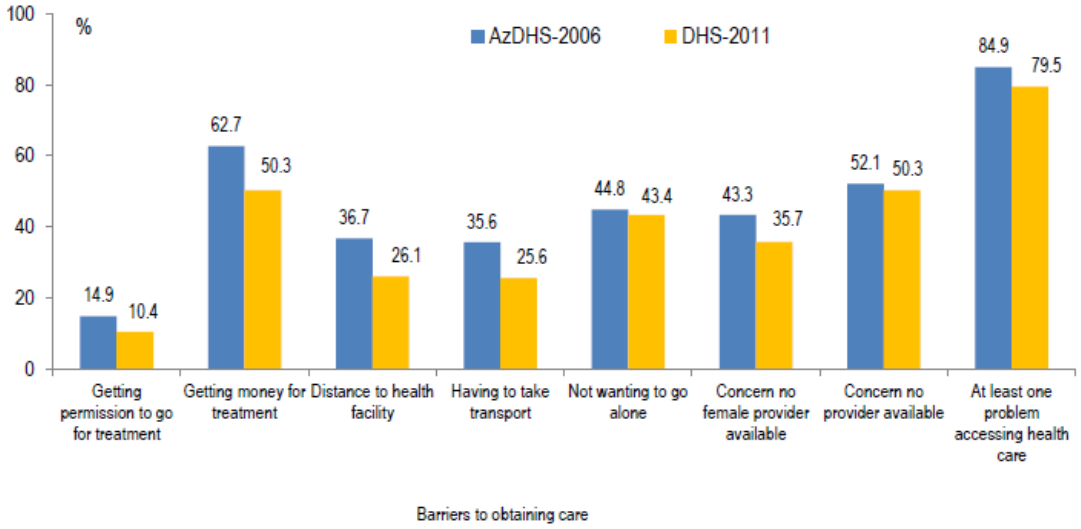
GENDER AND VULNERABLE POPULATIONS

As mentioned in the section discussing access to health information, many of the statistics available to the public in Azerbaijan are not disaggregated by gender, gender identity, region, rural/urban, age or socio-economic status, limiting understanding of health and health care access issues faced by particular subgroups of the population. Outside of national statistics, there are a few specialized reports and surveys that focus on special populations.

People with disabilities are provided with free health benefits according to the law (Ibrahimov et al, 2010), but because of the high level of stigma in Azerbaijani society surrounding disability, they may struggle to access care (McCabe, 2011). The lack of accessibility infrastructure, even in health care facilities, and a dearth of medical professionals trained in providing health care to people with specific disabilities further limit access to quality care. Over 40 percent of parents of children with disabilities reported having no access to care (McCabe, 2011).

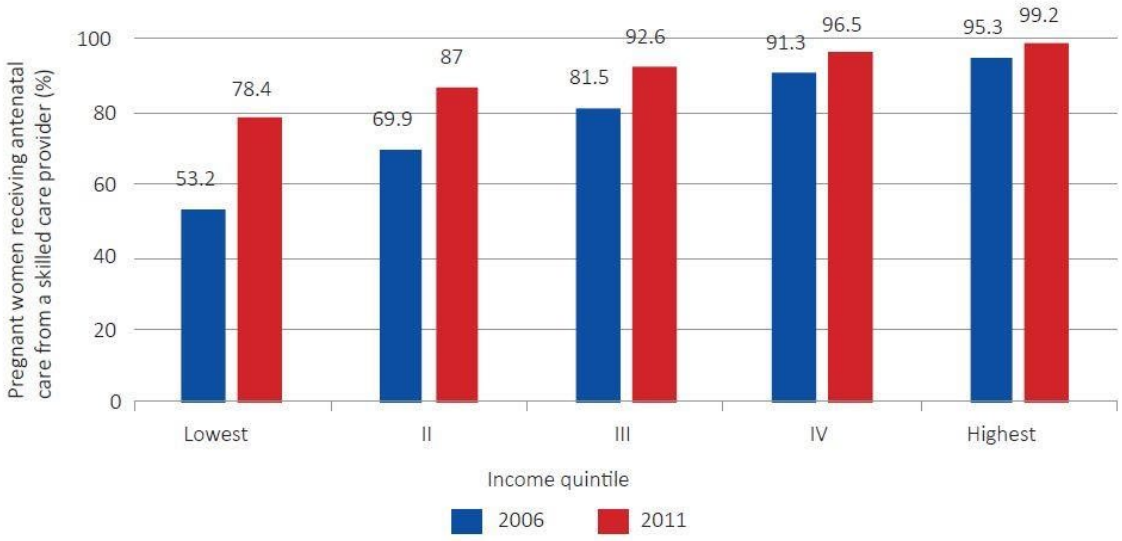
Azerbaijan's last Demographic and Health Survey (AZ-DHS 2011) conducted in 2011 found that nearly 80 percent of all women perceived themselves as having significant barriers to accessing care (Public Health and Reforms Center, 2013) (See Figure 2). As previously described, expectations of high OOP costs are a factor in accessing care. Amongst all women – rural and urban of all socioeconomic statuses—both finding money for treatment and concern that no provider was available were tied as the most commonly-identified barrier to accessing care (Public Health and Reforms Center, 2013). Specific barriers were not disaggregated by region or socioeconomic status, however rural women and women of lower socio-economic status were most likely to report any barrier in accessing care (Public Health and Reforms Center, 2013). The expectation of informal payments to providers and high cost of pharmaceuticals and supplements is a considerable barrier to accessing and receiving appropriate antenatal care in Azerbaijan (WHO Regional Office for Europe, 2020). Women's access to antenatal care appears to be affected by income levels, with lowest income groups reporting the least interactions with antenatal care (See Figure 3).

Figure 2: Women's Reported barriers to obtaining care, comparison of DHS-2006 to DHS-2011*



*Source: Figure from Public Health and Reforms Center, Demographic and Health Survey 2011, pg. 125. Copyright Public Health and Reforms Center.

Figure 3: Pregnant women receiving antenatal care from a skilled care provider, by income quintile*



*Source: Figure created by WHO Regional Office for Europe in *Assessment of sexual, reproductive, maternal, newborn, child and adolescent health in the context of universal health coverage in Azerbaijan* (2020), pg.19 using data from the Azerbaijan Demographic and Health Surveys 2006 and 2011. Copyright WHO Regional Office for Europe.

The literature review did not find discussion of the impacts of ethnicity, sexual orientation, or gender identity other than based on sex at birth on accessing care in Azerbaijan.

SERVICE DELIVERY: THE SHIFT TO PRIMARY CARE

The Soviet system was designed around hospital inpatient care rather than primary care and this emphasis of hospital-centered and inpatient care over outpatient primary care has persisted in Azerbaijan's health care system over time (Ibrahimov et al, 2010; Footman & Richardson, 2014). This preference is reflected in the fact that MOH only rehabilitated 25 primary health care facilities, but reconstructed and rehabilitated 86 hospitals between 2009 and 2015 (Bonilla-Chacin et al., 2018).

Azerbaijan's MHI scheme is designed around a principle of family medicine and primary care and requires a significant shift in the way patients and providers behave within the government health system. Under MHI patients will have to go to their assigned primary care provider first (Aiypkhanova, 2021), a big switch from a system where many people's first encounter with the health system was with a specialist or at a hospital. Data from 2015 show that the vast majority of all outpatient care visits occurred at a type of hospital across all income groups and primary health centers and doctor's outpatient centers were rarely used (Bonilla-Chacin et al., 2018) (See Figure 4).

Figure 4: Type of Health Facility Used for Outpatient Care by Income Decile*

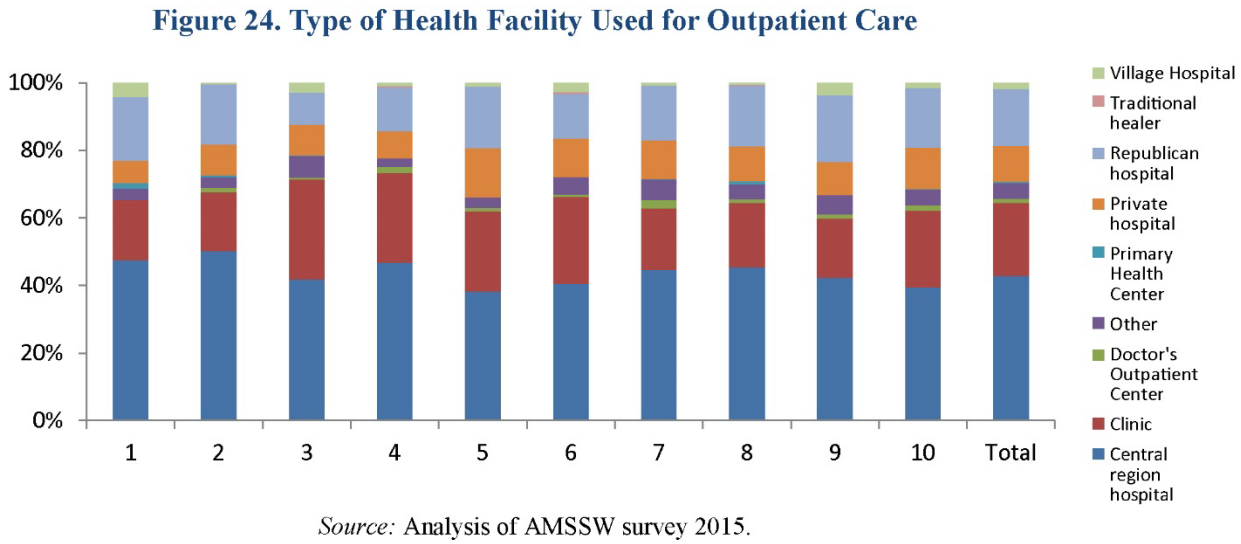


*Figure from Bonilla-Chacin, M.E., Afandiyeva, G., and Suaya, A. (2018) *Challenges on the Path to Universal Health Coverage: The Experience of Azerbaijan*. Universal Health Care Coverage Series 28. Washington, DC: World Bank Group, pg. 37. Copyright Bonilla-Chacin et al. based on an analysis of the 2015 Azerbaijan Monitoring Survey of Social Welfare (AMSSW).

Despite the multipronged efforts from the government and international organizations to strengthen the capacity of primary care in Azerbaijan, including through provider training courses (Ibrahimov et al., 2010; PHCS Year 2, 2009; PHCS Year 3, 2010), there remains a strong misunderstanding of what primary care is amongst providers and patients (Vatansever et al., 2021). Participants of a WHO focus group study of providers in Shamakhi believed "primary health care currently functions like traffic police, by just referring people with noncommunicable diseases to specialist care after very basic triage" and found that doctors, nurses, and village health care workers did not even assess risks of disease through patient histories (Vatansever et al, 2021). This belief stems from the Soviet Semashko System, which had clinics and medical points to provide "first aid" or immediate treatment of minor illnesses or injuries, but were not seen as a tool for prevention, early detection, or management of chronic illnesses as envisaged by the Western concept of primary care (Ibrahimov et al., 2010). If workers at the primary care level do not take on a greater role in prevention, treatment, and management of illness and chronic disease, then the system just creates another layer of cost before the cost of specialist care.

MISMATCH OF HEALTH WORKFORCE AND POPULATION NEEDS

The MOH leads efforts related to human resources, including coordinating with the Ministry of Education, Azerbaijan Medical University, and the Azerbaijan State Advanced Training Institute for Doctors named after A. Aliyev (ASATID) on medical training (Ibrahimov et al, 2010). As part of its Primary Health Reform Project 2006-2013 cofinanced by USAID, WHO, and UNICEF, the World Bank helped create a family medicine training program at the ASATID, updated the undergraduate and postgraduate medical curricula and created the legal and regulatory framework for required physician recertification every five years (IEG ICR Review, 2013). It is unclear if the medical curriculum has been updated again since then. Historically, the Soviet system churned out more specialists than generalists who have the skillset to implement primary care (Karanikolos et al., 2014).

EDUCATION REMAINS DISCONNECTED FROM NEEDS OF HEALTH SYSTEM

Medical education in Azerbaijan is "based on the German-Soviet model," but efforts have been made to make it more consistent with European standards (Mammadov, 2016). Both the MOH and the Ministry of Education are responsible for medical education (Mammadov, 2016). The international development and donor community has provided assistance for curriculum development and also medical training opportunities for doctors, nurses, and other health care workers, particularly around gaps in provider knowledge that are barriers to establishing a system of primary care - maternal and child health, reproductive health, screening for non-communicable diseases (NCDs), and TB management, among others. Other trainings have included emergency care, and training in operation of new diagnostic equipment (Ibrahimov et al., 2010; IEG ICR, 2013).

Education for Doctors. Azerbaijan Medical University was the only undergraduate provider of medical education in country until 2015, when the Baku branch of the First Moscow State Medical University was opened.[15] The first class of medical students, 87 in total, graduated from Baku branch of the First Moscow State Medical University in June 2021.[16] According to the Azerbaijan State Statistics Committee (SSC), from 2015 to 2020, between 934 and 1487 students graduated from institutions of higher education in medical fields per year (SSC, 2021).[17]

Doctors complete six years of undergraduate training, dentists five, pharmacists four with an option to get a master's degree with an additional two years of training. Undergraduate training for radiologists, ultrasound, laboratory doctors, and doctors in the field of sanitation and epidemiology is five years (Ibrahimov et al, 2010). As of 2010, all medical students completed a required one-year internship under the supervision of a senior doctor. Surgeons and obstetrician-gynecologists begin training in their specialties in the sixth year of undergraduate education and continue in their internship. Specialization in other fields, including psychiatry, occurs in the one-year internship (Ibrahimov et al, 2010), which a WHO assessment called "not sufficient" (WHO-AIMS, 2007).

Residency. Azerbaijan has since worked with international experts from the World Bank's Health Sector Reform Project to establish a medical residency program "based on the experience approved by the international education system" managed by ASATID[18]. Residencies vary in length from 2 to 5 years depending on specialization. In 2017, the State Examination Center of Azerbaijan took over admissions examinations for residency programs from ASATID. Graduates from international or domestic undergraduate medical programs apply through two paper-based examinations administered by the State Examination Center. Graduates who pass the first general knowledge exam, then test in their specific field of study.[19]

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[15] Azerbaijan State News Agency. "Baku branch of I.M. Sechenov First Moscow State Medical University holds grand opening ceremony." https://azertag.az/en/xeber/Baku_branch_of_IM_Sechenov_First_Moscow_State_Medical_University_holds_grand_opening_ceremonyAzerbaijani_First_lady_Mehriban_Aliyeva_attends_the_ceremony-884871

[16] Ministry of Health. [Press Release] June 6, 2021 http://sehiyye.gov.az/xeberler/3437-mseenov-adna-birinci-moskva-dvlt-tibb-universitetinin-bak-filialnn-ilk-mzunlarna-diplomlar-tqdim-edilib.html

[17] https://www.stat.gov.az/source/healthcare/, Accessed October 20, 2021.

[18] ASATID website, http://adhti.edu.az/index_en.php?go=residency, accessed October 22, 2021

[19] State Examination Center of the Republic of Azerbaijan website, https://dim.gov.az/en/activities/exams/2219/, accessed October 22, 2021.

Nursing Education: Nurses in Azerbaijan are considered paramedical staff and train 22-30 months at one of eight vocational nursing schools in Baku and other larger district centers across the country rather than as part of an undergraduate university program (Ibrahimov et al., 2010). The lack of nursing graduates in state statistics of higher education by medical specialization indicates that there are no current undergraduate, masters, or doctorate programs for nurses in Azerbaijan (SSC, 2021a, Table 1.1.5). There are significantly less graduates from nursing schools than medical higher education in Azerbaijan over the period of 2015-2020 (SSC, 2021a, Tables 1.1.5). While nurses are included in training efforts by the international donor community, the literature did not include evaluations of those efforts nor evidence of efforts to significantly reform training for nurses or introduce undergraduate or masters programs. UNDP has a program to support Vocational Education & Training, where addressing issues around training for nurses is not a stated component (UNDP Azerbaijan, 2021).

Continuing Education. ASATID, established during the USSR, manages continuing education and the postgraduate training of doctors. Specialized doctors are required to complete continuing education and recertify in their specialization every five years (Ibrahimov et al, 2010). As of 2010, nursing schools in Baku, Ganja, Mingechevir provided post-graduate training courses including refresher courses that nurses are required to take every five years (Ibrahimov et al, 2010). Azerbaijan's development partners have and currently fund training courses for medical professionals, but most publicly available information is in the form of press releases or success stories rather than an evaluation or report, making it hard to determine their successes in improving outcomes for patients. The newly established "Yeni Klinika" clinic in Baku has a training center for health care workers that is being used for training of trainers efforts by WHO and its funders, including the European Union and USAID[20]. In the past, most of these courses failed to be institutionalized and stopped after funding ran out, significantly limiting their ability to impact quality of care or improve health outcomes for patients over the longer term (Ibrahimov et al., 2010).

HEALTH WORKFORCE

After the fall of the Soviet Union, there was a mass exodus of nurses both from the country and to other sectors of the economy due to the low pay and poor working conditions (Karanikolos et al., 2014). Some of the piecemeal reforms made since independence in the health sector have also had large unintended consequences on the health systems workforce and human resources. A policy shift from Soviet era removed the requirement for medical and nursing graduates to complete a mandatory service in an assigned location after graduating; this had the unintended consequence of making it even harder to staff polyclinics and medical points serving rural communities (Ibrahimov, et al, 2010). The health workforce does not always match the demonstrated need. A recent assessment on the socio-economic effects of COVID-19 by UNDP found that while the country has sufficient human resources on paper (32,485 physicians/37,630 nurses as of 2019), Azerbaijan did not have enough IPC specialists to meet the needs of the COVID-19 pandemic (UNDP, 2020). While choice in education and employment is consistent with values of democratic governance, the continued mismatch of skillsets points to failures in incentivizing fields of study and places of employment based on need.

The World Bank's Health Sector Reform Project helped develop norms on the upper limit for staffing of nurses and doctors based on population size to ensure greater efficiency of the workforce (Ibrahimov et al, 2010). However, workforce allocation in Azerbaijan has much greater issues than efficiency. Rural

[20] https://www.facebook.com/EUDelegationtoAzerbaijan/posts/4544412392320454

areas across the region have long had difficulty staffing and retaining health care workers, nurses, and doctors (Karanikolos et al., 2014). Higher pay in the private sector leads to significant "brain drain" to the private sector in Baku (Ibrahimov et al., 2010) and inadequate facilities, medical equipment and poor living conditions discourage health care workers from taking unstaffed positions in rural areas (Vatansever, 2021; Karanikolos et al., 2014). This in turn has serious consequences on access to care. Azerbaijan's 2011 Demographic and Health Survey found that many reported concerns about providers not being available as a barrier to accessing care (Public Health and Reforms Center, 2013)

As of 2020, there was no policy to incentivize doctors to provide services to rural areas (WHO Regional Office for Europe, 2020). The Cabinet of Ministers sets the pay scale for health sector employees and did increase pay for healthcare workers responding to COVID-19 by 3-5 times their base pay (European Observatory, 2021), so there is a precedent for such incentive systems.

HERE AND NOW DYNAMICS

The past year has brought on a number of significant events that have not yet been explored in publicly available literature in the context of the political economy of Azerbaijan's health system.

LEADERSHIP CHANGES AND FULL ROLL-OUT OF MANDATORY HEALTH INSURANCE

The president dismissed Shiraliyev and appointed Teymur Musayev as Acting Minister of Health in April 2021, following the expansion of MHI program to the entire country.[21] He was one of the last longstanding Ministers to be replaced by Ilham Aliyev. According to Ibrahimov et al, (2010), the last change in MOH leadership in 2005 was followed by a spurt in efforts with the international development community to create policy, procedures, and legislation in support of improving primary care, quality of care, and laying the groundwork for Mandatory Health Insurance. The literature does not explore to what extent the Minister's dismissal signals an expectation for reform/change from the President. It is also possible that Minister Shiraliyev was late on the list of dismissals because the Ministry of Health continues to be one of the lowest ranking Ministries in the unofficial hierarchy of the Cabinet of Ministers.

In September 2021, the head of TABIB resigned and the Chairman of SAMHI appointed a temporary Acting Head.[22,23] The extent to which having Acting rather than fully appointed leadership in both of those positions may affect the dynamics between SAMHI, TABIB, and MOH and the ways they interact with health sector development partners could be further explored in the PEA process. The dynamics may change again with new permanent appointments to these positions.

In other countries who have rolled out MHI, the equivalent of SAMHI fell under the MOH, thus limiting its ability to affect change (Footman & Richardson, 2014). In Azerbaijan, SAMHI is an independent standalone agency, possibly giving it the autonomy it needs to succeed. Azerbaijan is currently in its first year of MHI coverage for the entire population, with coverage expanding to all remaining territories of

[21] Azernews, "Azerbaijani president signs decree on dismissal of Health Minister." April 23, 2021 https://www.azernews.az/nation/178290.html

[22] APA, "TABIB Board Chairman Ramin Bayramli Applies for Resignation" Sept 12, 2021 https://apa.az/en/xeber/accidents-incidents-news/tabib-board-chairman-ramin-bayramli-applies-for-resignation-357615

[23] https://www.azernews.az/nation/183237.html

the country including the city of Baku as of April 1, 2021 (Aiypkhanova, 2021). The experience of the first year and the government's ability to address and overcome implementation challenges and deliver on potentially transformative changes like the development of will ultimately decide the long-term success of the initiative. The European Commission estimates that the full learning process for successful implementation of the scheme will take five years or more and has initiated a Twinning Project to assist SAMHI, TABIB, and other government stakeholders including MOH, the Ministry of Economy and Taxation and the MOF on a range of activities related to its roll-out (European Commission, 2021). The Twinning Project sets out to resolve outstanding issues related to benefits package requirements, coverage of pharmaceuticals, the possibility of dual coverage/multiple plans, improving cooperation with health care providers, requirements for health institutions to participate in MHA, and cooperation with private sector health providers as well as increase the role of civil society organizations and improve SAMHI's transparency and public communications to ensure a successful roll-out (European Commission, 2021). Key partners in the first years of the roll out will be the European Commission and member states, as well as WHO, which has been supporting SAMHI since its inception (Universal Health Coverage Partnership, 2021).

COVID-19 PANDEMIC

According to official statistics, Azerbaijan has fared quite well in comparison to other countries in the COVID-19 pandemic, particularly in the central and eastern Europe and Caucasus regions. It has one of the lowest cumulative death rates per million in the region according to officially reported figures.[24]

However, there are many challenges ahead. Azerbaijan is ahead of many other countries in the region in vaccinations with about 45 percent of its population fully vaccinated (see Figure 2), but still falls behind the European Union (67 percent vaccinated) and WHO's target of 70 percent of the population vaccinated by 2022.[25] Recent analyses of vaccine confidence found that the percentage of people disagreeing that all vaccinations are safe increased between 2015 and 2019 in Azerbaijan (Figueiredo et al., 2020), which has implications not only for the COVID-19 outlook in Azerbaijan, but for other vaccine-preventable illnesses as well. Recent WHO focus groups of health care workers found that many perceived a growing sense of vaccine hesitancy amongst the population they served (Vatansever, 2021).

The pandemic has also put a significant strain on the health workforce and the health system capacity to address non-COVID-19 issues. A UNDP socio-economic assessment warned that access to essential maternal and child health services has reduced. They also estimated that as many as 140,000 newborns across the country could face delays receiving essential immunizations (UNDP, 2021). It has also highlighted several of the gaps in knowledge and skillsets in the country, such as in the field of infection prevention and control (UNDP, 2021). Donor response efforts to mitigate the socioeconomic effects of

[24] Heat Map of *Cumulative confirmed deaths per million people, as of November 27, 2021*, Our World in Data online resource (Ritchie et al., 2020); https://ourworldindata.org/covid-deaths , Accessed November 27, 202.

[25] *Share of people vaccinated against COVID-19, as of November 27, 2021*. Our World in Data online resource (Mathieu et al., 2021) https://ourworldindata.org/covid-vaccinations?country=UKR~ALB~ARM~AZE~BIH~GEO~MNE~MKD~BLR~BGR~MDA~ROU~SRB~OWID_KOS, Accessed November 27, 2021.

the pandemic on the most vulnerable have revealed how little sustainable progress has been made in achieving equitable access to primary care across the country (Vatansever, 2021).

Current Actors: The pandemic has brought significant engagement from UN agencies, bilateral international donors, international development and humanitarian response organizations, and international financial institutions including from USAID, the European Union, UN Agencies, most prominently WHO and UNICEF[26], the World Bank, the Global Fund[27] and recently the Asian Development Bank[28] and Asian Infrastructure Investment Development Bank[29], who are lending 250 million and 100 million USD, respectively. There is no existing literature describing the broader international response landscape for COVID-19 in Azerbaijan and an attempt to paint a fuller picture of the players involved would require an analysis beyond the scope of the literature review. The role of non-Western bilateral donors could also be explored further.

NAGORNO-KARABAKH

A year after the Nagorno-Karabakh conflict escalated in a war that resulted in the return of a significant portion of occupied territory to Azerbaijan, much of the country and government's attention lies on the reconstruction. The government of Azerbaijan has committed $1.29 billion to reconstruction efforts in Nagorno-Karabakh.[30] The war, in combination with the pandemic, has placed a large burden on Azerbaijan's health system and have exacerbated the burden of mental health morbidity[31] (WHO-AIMS, 2007).

The Azerbaijani government wants to showcase the successful reconstruction of territories returned after the war. It also wants to be seen as a global leader in the pandemic. It has donated $5 million to the WHO for COVID-19 response (European Observatory on Health Systems and Policies, 2021) and allocated significant funds ($3.83 billion) to address gaps and vulnerabilities caused by the pandemic internally related to health, social protection and macroeconomic stabilization. These could either be complementary or competing priorities.

CONCLUSION

This document summarizes the academic and gray literature relevant to the Political Economy of the Health Sector in Azerbaijan, and specifically its Foundational Factors, Rules of the Game, and Here and

[26] Azerbaijan: Response to COVID-19 pandemic. WHO Regional Office for Europe [website]. https://www.euro.who.int/en/countries/azerbaijan/azerbaijan-response-to-covid-19-pandemic, Accessed October 20, 2021.

[27] The Global Fund. (2021, April 28) COVID-19 - Allocations and Funding Request Tracker. C19RM Allocations [spreadsheet]. https://www.theglobalfund.org/en/covid-19/allocations-and-funding-request-tracker/

[28] ADB (Asian Development Bank). (2021, July 7) ADB Approves $250 Million Loan to Support Azerbaijan's COVID-19 Response [Press Release] https://www.adb.org/news/adb-approves-250-million-loan-support-azerbaijan-covid-19-response

[29] AIIB (Asian Infrastructure Investment Bank). Azerbaijan: Republic of Azerbaijan COVID-19 Active Response and Expenditure Support (CARES) Program. https://www.aiib.org/en/projects/details/2021/approved/Azerbaijan-Republic-of-Azerbaijan-COVID-19-Active-Response-and-Expenditure-Support-CARES-Program.html

[30] Azvision.az. (2021, August 10). Azerbaijan reveals total amount of funds spent on restoration of liberated lands. https://en.azvision.az/news/147870/news.html

[31] France 24. (2021, Sept 27) Trauma Stigma Plague Soldiers a year after Karabakh War. https://www.france24.com/en/live-news/20210927-trauma-stigma-plague-soliders-a-year-after-karabakh-war

Now Dynamics. The foundational factors relate to Azerbaijan's political and governance system, its economy, and the health care system it inherited from the former Soviet Union. The Rules of the Game include issues surrounding the functioning and relationships of the executive branch of the government, interactions with the international development community, the new MHI scheme, access to care, and the health workforce and education. The Here and Now are related to the roll-out of MHI and changes in public sector health leadership, the COVID-19 pandemic, and Nagorno-Karabakh. The key take aways from the literature review is summarized below:

- The path to health sector reform over the years has been influenced by a variety of factors at different levels of Azerbaijan's political economy. The reform process has had to overcome key structural and financial inefficiencies inherited from the Soviet Semashko health system. It has also had to compete with priorities that seem more proximal to Azerbaijan's long-term stability such as the Nagorno-Karabakh conflict and a focus on the development of the oil and gas industry as well as the non-oil economy, although poor health outcomes indicate this may have been a miscalculation of priorities.

- Now may be the time to engage in the health sector. The reforms in the financing and management of the government health sector in addition to the changes in key Ministerial and agency leadership positions signal a broader openness and prioritization of reform efforts from the top, creating a potential opportunity to collaborate towards reform efforts.

- Historical tensions and power dynamics between health sector stakeholders suggest that USAID engagement will need to carefully consider relationships to identify the appropriate counterparts for collaboration. New players, SAMHI and TABIB, have changed the power dynamics between other actors in the health sector, requiring further analysis of Rules of the Game. USAID may also want to consider the impact of individual relationships between leaders of government entities, a factor not explored in the literature.

- There are several key areas for longer-term support. The literature review identifies needs to increase access to essential health services in rural areas and amongst vulnerable populations, improve health education, address mismatches between the health workforce and needs of the population, and improve data collection and analysis for decision-making.

- Access to basic health services including maternal and child health services, preventive care, and treatment of routine illnesses and injuries remain complicated for many in rural areas due to shortages in rural providers. The mismatch between the skills and distribution of the health workforce and the needs of the population point to a need to reform the health education system. Addressing this issue requires understanding and reforming the incentives that attract young people to study needed health skills and serve in chronically understaffed rural health clinics and medical points.

- While a critical need, efforts to establish better health information systems and address issues with data collection and analysis may require extra sensitivity to the political and historical context that contributes to a culture of distrust in collection and sharing of accurate information. Additional time may be necessary to establish the relationships and trust to engage on these issues. Ultimately, the government may prefer to engage multilateral stakeholders of which they are members and with

whom they have trusted data sharing policies. This may be true in other areas of health engagement as well.

- Azerbaijan is currently implementing a switch to financing government health services through Mandatory Health Insurance and a model of primary care based on family medicine. If it functions correctly, the new system should help the government health system overcome some of the foundational challenges it inherited from the Semashko System as well as financial barriers that continue to disadvantage patients, particularly low-income and rural patients. Much is still unknown about the extent to which MHI will address health financing, access to care, and improve service delivery. The government will need to invest considerable resources to monitor and evaluate performance and address issues with implementation. WHO and European Commission have committed to helping the government throughout this process, but the complicated nature of this change creates ample opportunities for engagement, including potentially for USAID.

Additional key factors to consider might be what is not found in this literature review. There hasn't been a substantive review of the health sector since the 2010 *Health Systems in Transition series* on Azerbaijan by Ibrahimov et al. (2010). Almost all the data presented and used to illustrate certain realities of the health system in Azerbaijan predate the implementation of Mandatory Health Insurance, and a significant amount of the data are over 5-10 years old. While there was information about institutions and the ways in which they interact with each other, the literature review did not find analyses of specific personalities in the health care sector and the relationships/dynamics between them.

There is also a notable absence in the literature about the role and influence of patients, citizens, civil society organizations and other non-traditional stakeholders such as rural municipal representatives or businesses related to the health sector and health sector reforms in Azerbaijan. Similarly, while there is information about doctors and health care workers, there is no discussion of their role in the development or advocacy for health system reforms.

Finally, the literature did not deeply discuss the role that private health care facilities and providers in Azerbaijan can play or have played in reforms efforts. These missing pieces are as important to consider in a political economic analysis as the foundational factors, rules of the game, and here and now included in this report.

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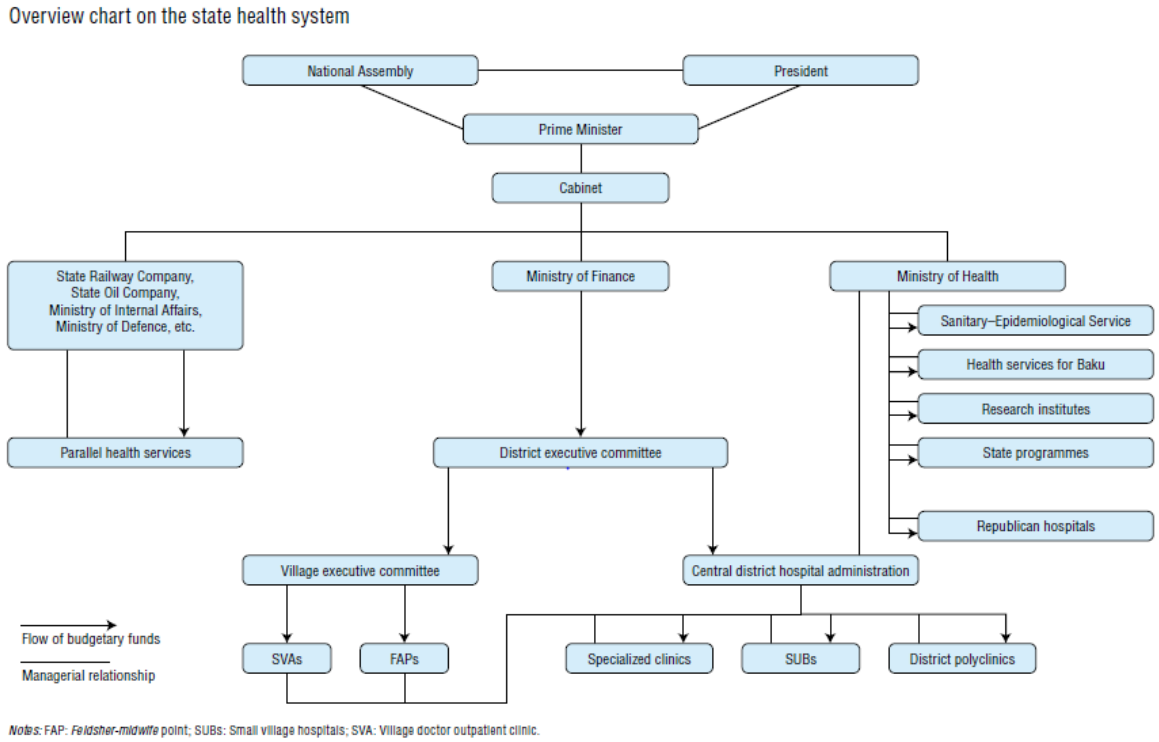
ANNEX 1.

Structure of State Health System Management and Funding Prior to Introduction of Mandatory Health Insurance*



* Source: Ibrahimov et al., *Health Systems in Transition*, 2010

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