AMERICAN UNIVERSITY OF ARMENIA

Health Care System and Development in Armenia

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by

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INTRODUCTION

The 2009 world economic crisis and the more recent crisis in the Russian Federation have had a significant negative impact on Armenia's economy considering the latter's high dependence on Russia, particularly on the remittances sent home by family and friends living abroad. As a result, unemployment and poverty rates have increased drastically in the years following the 2009 economic crisis and the GDP has sunk. Economic and social hardships have resulted in increasing labor migration and emigration. The escalation of poverty has naturally increased the number of vulnerable people who are reliant on different types of social programs implemented by the state. As a result, the burdens on society, in general, and on government, in particular, have increased exponentially. One such manifestation is in the health care system, particularly as it pertains to services available to vulnerable populations (Berman, 1995; Challenor, 1975).

Human resources are crucial for the development of the state. Productive people work, generate income and contribute to economic growth (Butler, Corvalan, and Koren, 2005). This is why it is crucial for government to focus on improving the employment status and living standards of citizens. In order to do that government should work to improve the educational system, put in place effective social programs and empower its people (Rosenzweig, 1990; Woolf, 2015). As an integral part of state-led policies and programs is the urgency of focusing on the health system of a developing country as a way of improving the productive life of citizens (i.e., life expectancy, quality of life); here the focus is on establishing a system that provides affordable and quality healthcare (Fukuyama, 2001). The criticality of focusing on establishing an affordable and quality healthcare system pertains to most developing countries. This research focuses on that taking the case of Armenia and asking questions related to a healthcare system

that would be both affordable for and accessible to the entire population, including the most vulnerable segments. The research also tackles the extent to which such a system would enhance human capital and contribute to the overall development of the state.

THEORETICAL FRAMEWORK

The existing literature on development is dominated by multiple schools of thought, from the classical models of the early fifties, to the Harrod-Domar linear stages of growth model, the Solow growth model focusing on aggregate production, and on to the structural change model, the international dependence model and the neoclassical free market model. These models have focused on savings, investment, and capital, subsequently emphasizing structural changes necessary for pushing a nation's economy forward, along with the necessity of foreign aid to provide for the external push to accelerate growth (Gillis et al., 1992; Griffin, 1978). Although the individual is at the center of even the earliest development theories, the more recent growth theories have placed added emphasis on knowledge/capacity building or human capital development. In that context, personal wellbeing is at the center of the argument that increases of per capita income produce improved living standards and associated indicators encapsulated within the Human Development Index (HDI).

In 2000, the international community set out a program comprised of eight major goals, which subsequently became known as the UN Millennium Development Goals (MDGs). These were set to significantly curtail poverty by the year 2015. Although some advances were recorded, in 2015 UN member states came together to assess the achievements and subsequently revised the world development agenda to a new set of goals, labeled as UN Sustainable Development Goals (SDGs). The global development agenda embraced those goals and individual country targets, which, if and when accomplished, would contribute to global

development and reduce poverty. Many of the sub-goals mentioned in the global development agenda aim at improving health (Travis et al., 2004). The MDG's fourth goal was to decrease child mortality; the fifth goal was to improve maternal health; and the sixth goal was to combat several types of diseases. Similarly, the SDGs comprise several goals earmarked for achieving good health and general wellbeing (Sachs, 2012). This suggests that the international community of scholars and development practitioners have understood the importance and significance of striving to improve people's health.

Existing studies have shown that wealth and health are closely related. Healthy individuals can be more productive and able to increase their income, and wealthier people also can be healthier as they can afford health-related services (Anastasiadis and others, 2010; Banerjee, Deaton, and Duflo, 2004; Bloom and Canning, 2000; Pritchett and Summers, 1996). Moreover, increase in productivity affects the economy of a state. There is evidence that a healthier person is able to generate more money than a person who has health issues and unable to work to full potential (Bloom, et. al, 2004). This suggests that improvement of people's health does not only improve individual wellbeing, but also contributes to the development of the state. These lend themselves to ask the following questions: Which type of health systems or approaches work best for developing countries in conflict, such as Armenia? What are the health priorities of a developing nation that the health system should consider? These are the key issues that the current research aims to tackle.

LITERATURE REVIEW

Overview of the Evolution of Development

Human Capital Development

Scholars almost unanimously posit that economic growth and human capital are closely linked to each other. Furthermore, optimization of human capital is essential for the development of the state as a whole. In many developing countries, governments are beginning to place added emphasis on empowering citizens, improving the standard of living, and solving problems related to wellbeing, because failing to do so would obstruct individual and collective abilities to create and produce (Barro, 2001; Becker, 2009; Pissarides, 2000). Moreover, Kumar adds that in many cases the state provides citizens with the necessary tools and opportunities to grow. He also adds that people's trust towards governmental institutions is imperative for the development of the state (2006). The development process is a dynamic one, where both the quality and quantity of available resources, such as human capital, and the effective linkages among available resources result in proportional development (Mirvis wt al., 2008; Mirvis and Clay, 2008; Strauss and Thomas, 1998).

Further, the development process is highly dependent on a state's will and capacity to develop. For instance, for optimal development, a state should be able to focus on different sectors concurrently. The state apparatus should focus on culture, education and economy; empower the population; and create an environment that attracts local and foreign direct investments. For each of these key development contributors, human capacity is a foundational ingredient for moving the state forward in a sustainable path. Human capital, therefore, can be defined as the skills that an individual has that help him/her to generate income and improve

his/her quality of life (Becker, 1994; Healy & Côté, 2001; Schultz, 1961). By way of building human capital, therefore, individuals would live longer, be healthier, have access to reliable healthcare, education, and other resources to be able to generate the highest possible income and measurably participate in the development of society and the state.

Health Care System in Development

As depicted earlier, among the most essential components of development is a country's healthcare system. Illnesses hinder people's productivity for obvious reasons. People with acute or chronic illnesses not only generate less income, but also spend more money on health-related issues (Bloom et al., 2004; Deaton, 2002; Woolf, 2015). Instead of contributing to the state's growth and development, people who need constant medical attention on a personal level also obstruct state development (Arora, 2001; McFadden, 2008). This makes it imperative for a state to constantly improve its healthcare system and making it both more accessible and affordable to everyone (Kumar, 2006).

A government wiling to use its potential for the development of the state should aim to improve the physical and mental health of its citizens, by introducing and encouraging citizens to undergo preventive and regular checkups and adopt a healthy lifestyle (McFadden, 2008). The government should also adopt and introduce policies that aim to decrease overall mortality, reduce infant mortality and increase average life expectancy of citizens in order to fully benefit from the individual and collective potential of the citizenry. Citizens' productivity and full engagement in the workforce is shown to contribute to state revenues through taxes. Thus, a healthier population results in more productive human capital that better contributes to the development of the state (McFadden, 2008).

Income, Health and GDP

It is suggested that increased per capita income results in longer life expectancy and, therefore, also overall GDP and economic growth (Bloom et al., 2004; Preston, 1975; Pritchett and Summers, 1996). Longer life expectancy also helps generations to increase their savings affecting the size of overall state savings and capital and contributing to the speedier development of the state (Bloom et al., 2004). These authors suggest that overall wellbeing, both physical and emotional, improves when people generate more income.

This theory is also articulated in a WHO report, which shows that in developing countries even a mere one percent increase in income has resulted in a measurable decrease in childhood death (WHO, 2001). Moreover, other scholars claim that poor people are also generally less healthy because they are the ones who work in hazardous environments and are less willing and able to pay for healthcare services (Evans and Kantrowitz, 2002; Marmot, 2002).

The Case of Armenia

Armenia inherited its health care system from the former Soviet regime, the "Semashko" system which guaranteed free medical treatment to all citizens. Whether or not that system would have been a good model for the productivity of the citizenry post-independence is not tackled by the current study. What is relevant is that the young republic faced enormous challenges in the years following independence, primarily because of the continuing conflict with neighboring Azerbaijan over the historically Armenian territory of Nagorno-Karabakh and the closed borders inflicted by neighboring Turkey. As a result, the country faced serious challenges, both politically, as well as economically. The healthcare system, therefore, was not at the level of urgency that would have moved the state government to devote more serious attention and resources to reforming it, although isolated reforms were realized from time to time

in the past decades (Hakobyan et al., 2006; von Schoen-Angerer, 2004; Zopunyan, Krmoyan and Quinn, 2013).

A recent study has shown that among eight post-Soviet states, Armenia, Georgia and Ukraine are performing the worst in terms of health care (Balabanova et al., 2012). According to the same study, the majority of respondents who had a health problem chose not to seek treatment and complained of the unaffordability of health care (von Schoen-Angerer, 2004; Zopunyan et al., 2013). Moreover, the respondents who sought treatment had to make informal out-of-pocket payments in order to get treated (Balabanova et al., 2012; Lewis, 2006). Lewis explains that health care systems in developing countries face problems stemming from corruption at many levels of the system. Therefore, the state should adopt specific measures that reduce corruption, thereby improving overall governance and, as a result, also improve the health care system.

The economic recession that hit the world in 2009 had a severe impact on Armenia's economy. Armenia has witnessed an economic recession and stagnation for the past years, which was amplified following the recession in the Russian Federation. In 2016, the average monthly household income is recorded at approximately 187,000 AMDs (about 385 US Dollars) (National Statistical Service of the Republic of Armenia, 2016). Most households use a large portion of their income for food and beverage and only 24.8% is left for other types of household needs, including education and healthcare (National Statistical Service of the Republic of Armenia, 2016). This shows that the economic recession has caused a significant increase in the number of vulnerable citizens and families living in Armenia. Although the number of poor families has increased, the state budget apportionment to health care has remained constant. This

means that the per capita state budget allotted to meeting the needs of vulnerable people has decreased, even when certain fees for services increased as a result of the recession.

Armenian authorities have tried to reform and improve the country's health care system on different occasions. In the first instance, the health care system was decentralized. State-funded clinics were placed under the jurisdiction of regional offices and municipalities. Moreover, the Ministry of Health has since allocated funds to regional offices and municipalities for expenses related to health care clinics including coverage for vulnerable citizens (Government of Armenia, 1998). In 1996, the government introduced the Basic Benefit Package, which aimed at providing basic health care services to the vulnerable people, including people with disabilities and the military (WHO, 2009). It also aimed at regulating the informal payments that dominated the system. Other specific reforms include the adoption of Obstetric Care in 2008 that covered pre-and post-natal services to women (OCSC, 2008). In 2011, the Child Healthcare policy provided children with free access to healthcare (CHSC, 2011). Moreover, the co-payment policy was introduced in 2011 followed by the introduction of the Social Package in 2012 providing, among other services, basic allowance for health insurance coverage for civil servants.

Moreover, the government introduced the co-pay system where citizens requiring health services pay a set amount, according to the established co-pay schedule, and the government covers the balance. This allowed the government to prevent health care providers, hospitals, clinics and health care specialists from haphazardly increasing or decreasing fees for various medical/health services (Babloyan, 2013).

Even though the authorities have tried to regulate existing problems, current literature suggests that funds allotted to people in need are not enough to cover medical expenses.

Therefore, citizens are still required to make informal out-of-pocket or 'under the table' payments in order to fully benefit from state-provided medical services.

Finally, Suter et al. (2009) suggest that in order to have a successful health care system a state should implement an integrated approach. The state should maximize accessibility of health clinics and hospitals, enforce performance management mechanisms, engage physicians in the decision-making process and promote good governance by ensuring the effective use of funds provided (Budetti et al., 2002; Suter et al., 2009).

Different Types of Health Care Systems

There are five basic health care models discussed in the literature on this topic. Some countries base their system on a single model, while others choose to combine features from different models and create their own hybrid model that can meet the needs of the government and the population (Rivard-Royer, Landry, & Beaulieu, 2002).

The Beveridge Model

In the Beveridge model, health services are provided and financed by the government through tax revenues. Major hospitals and clinics are state-owned and most health care specialists are employed as civil servants (Physicians for a National Health Program, 2017). In this system, even private practitioners and establishments are reimbursed for services rendered by the government. The government regulates the prices, thus has control over what doctors, hospitals and clinics charge. This system was established in the United Kingdom. Other countries where this type of health care system is adopted include most Scandinavian countries, Cuba and New Zeeland.

The Bismarck Model

In this system, a portion of the person's salaries/wages is deducted to cover health care insurance and the balance is covered by the employer. The percentages covered by employer and employee vary. Doctors and hospitals in those countries with this kind of health care system are private, but the government has tight control over fees (Physicians for a National Health Program, 2017). This system is found in most Latin American and European countries, including France and Germany.

The National Health Insurance Model

This system combines points from both the Beveridge and Bismarck models. Health care providers are mostly private. However, payments are made by government-managed insurance programs (Physicians for a National Health Program, 2017). Citizens are required to choose their preferred insurance policy and pay for it. This system allows people to negotiate lower prices because it leaves room for companies and providers to compete over prices and corresponding services. This model is prevalent in Canada, Taiwan and South Korea.

The Out-of-Pocket Model

This model is mainly prevalent in developing countries, where the government has limited resources. In this system, citizens are required to make out-of-pocket payments directly to the health care providers] (Physicians for a National Health Program, 2017).

The Universal Health Care Coverage Model

This model refers to a system that provides health care services to all citizens. A country is considered to have a universal health care coverage model if access to health care services

does not impose an additional financial burden on the user of medical services (WHO | Universal health coverage (UHC), 2016)

RESEARCH DESIGN AND METHODOLOGY

Research Questions and Hypotheses

The three questions of this research are derived from personal observations and the literature review. Thus, the research questions are:

RQ1: What are the weaknesses of the current health care system of the Republic of Armenia?

RQ2: Which type of health system would work best for Armenia?

RQ3: What are the health priorities that the RA health system should consider?

This research uses an exploratory design with a mixed (qualitative and quantitative) method of data collection and analysis in a transformative sequential design. The principal data collection instruments include in-depth interviews aimed at better understanding the peculiarities of the Armenian health care system and the critical problem points that need to be addressed for improving the contribution of a healthier citizenry to the development of the state. The Survey instrument was drawn from the interviews conducted and the survey was administered after completing the interviews. A convenience sampling technique was used for the latter. The majority of the surveys were administered in Yerevan and only a limited number of surveys were administered in different regions.

Selection of Experts

The selection of experts used purposive sampling to ensure that the interviewees are well-informed and able to expertly respond to the semi-structured questionnaire. The interviews were conducted in March-April, 2017 and included seven professionals, specialists and government

officials. Among the interviewees were one representative of the RA Ministry of Health, one representative of the Health Project Implementation Unit, three certified doctors, one representative of a state-owned polyclinic situated in Yerevan and the deputy director of a leading private hospital. In order to reduce researcher bias, the content analysis of interviews was done using pre-established categories and codes obtained from the reviewed literature and existing theories on the research topic.

DATA ANALYSIS AND DISCUSSION

Content Analysis

Interview transcripts were analyzed using the intensity markers displayed in Table 1. This protocol was established using generally accepted criteria for discourse analysis.

Table 1 — Intensity Markers

Grade	Frequency	Ranking by interviewee	Discourse Markers
1	1-5 times mentioned	Least important (ranked $4^{th,}$ 5^{th}, 6^{th})	No examples; shallow discussion
2	6-10 times mentioned	Some importance (ranked 3^{rd})	Some examples and some discussion
3	11-15 times mentioned	Important (Ranked 2^{nd})	Good examples with in depth discussion
4	16-20 times mentioned	Most important (ranked 1^{st})	Thorough examples and long discussion

Using the above pre-established protocol (rubrics) for the analysis of the interviews helped reduce subjectivity and bias and encouraged the interviewer to pay closer attention to the quality of content and delivery. For example, the number of times each category/code was mentioned by the interviewees was recorded parallel to the significance of content that each interviewee made obvious through the intensity of expression. To further collect observations from interviewees, they were asked to rank order the existing problems from the least to the most important problem

using a scale of 1 to 4, where the least important was 1 and the most important was 4. Furthermore, a score of 1 to 4 was given to each category or problem discussed based on the number of examples used by each interviewee. Finally, the mean intensity of each and every category/problem mentioned was calculated.

Table 2 — Weaknesses of the RA Health Care System

N	***Categories/Descriptors***	***Frequency***	***Ranking***	***Discourse markers***	***Mean Intensity***
1.	Effectiveness	4	4	3	3.7
2.	Awareness/mentality	2	3	4	3
3.	Affordability	3	3	2	2.7
4.	Transparency	2	2	2	2
5.	Coverage	2	2	2	2
6.	Accessibility	2	1	2	1.7

Table 2 presents the findings from in-depth interviews with government officials, physicians, and management of public and private hospitals and clinics. The content analysis of interview transcripts focused on identifying the strengths and weaknesses of the current health care system. Besides serving as specialists, all interviewees held administrative and/or managerial positions in their respective institutions and were in daily contact with both high ranking government executives, as well as the public. The interviewees provided insight into the current system and how it functions. Parallel to articulating the weaknesses, they also expressed their own thoughts and offered recommendations that might help solve some of the most crucial problems that exist.

The interviewees were unanimous on the importance of improving the effectiveness of the system acknowledging that there are problems that must be rectified. One problem articulated by the majority of respondents deals with the uneven allocation of funds to private hospitals

disproportionate with patient admissions. This causes surpluses in those hospitals with lower patient admissions and shortfalls in others with higher admissions. There is also the problem of unequal budgetary allocations among regions with rural communities with fewer populations getting more than needed, and hospitals in heavily populated areas getting insufficient funding to reach a larger number of citizens.

The respondents were unanimous that per-patient service fees allotted by the state did not correspond to prevailing market prices, which requires patients to make out-of-pocket payments to cover the balance. A couple of the respondents also spoke about the factor of saturation of state-run health clinics and hospitals in a few rural areas, which presents an added burden on the state budget.

The factor of effectiveness was cited most frequently by the interviewees most of whom also considered it to be the foremost important issue to resolve. Further, 4 interviewees mentioned that improving the quality of services is integral to increasing effectiveness. There was also mention that in some clinics and hospitals there is a surplus of doctors and nurses whereas in other areas there is a shortage of good caregivers. Overall, the effectiveness problem was brought forth by all interviewees and constituted a prevalent component of the problems in the current health care system. The criticality and importance of optimizing the existing model to make it more effective is one the government's agenda, as stated by an interviewee closely familiar with the state strategic objectives.

Regarding the awareness factor, most interviewees raised the issue that most of the population is not fully aware of how the current system functions, particularly with respect to knowing how to benefit from state-funded medical services both in terms of the application process, follow-on steps, and eligibility requirements. Moreover, the population of Armenia has

not been educated on the importance of regular checkups polyclinic. This lack of awareness alone costs the government and the patient manifold more than treating a medical problem diagnosed earlier or prevented altogether. The awareness problem was ranked second in importance by the interviewees who viewed this relative to existing problem in the health care system.

The majority of interviewees verbalized that primary health care services are either completely free or at least affordable. However, they also stated that not everyone gets state-funded coverage for secondary and tertiary services. Thus, those who are not covered by any form of health insurance have difficulty paying for those expenses. Furthermore, several interviewees added that the application process to qualify for state-funded medical service is cumbersome. A chief specialist on the other hand mentioned that in theory the allocated health care budget covers almost half of the yearly per-capita medical expense (estimated to be approx. 150$). This means that the other half is covered by out-of-pocket payments. Most interviewees added that when compared with other parts of the world, medical services in Armenia are relatively inexpensive. However, low wages coupled with high unemployment rates cause an unaffordable additional burden on vulnerable families that solve emergency medical needs by collecting donations from family and friends, by selling assets, or by getting bank loans. The interviewees ranked the affordability issue as the second most important element of Armenia's health care system.

The majority of interviewees talked about transparency underlining that it is a problem not only related to governance, but also to the attitude of people. Further, two interviewees explained that the absence of performance-based management coupled with low salaries incite both health professionals as well as patients to resort to informal payments. Moreover, four

interviewees added that the government should initiate more reforms and administrative changes in order to make the system more transparent. According to the polyclinic manager interviewed, efforts have been expended to address this issue. For instance, the papers that patients submit in order to get state funding are now numbered. This procedural amendment prevents both patients and health professionals from exploiting the system polyclinic loopholes that enabled them to get prescription benefit from various hospitals for the same medication.

On the issue of coverage, a few interviewees articulated that a substantial portion of the population is not covered by any type of health insurance. All interviewees, however, mentioned that the government has succeeded in increasing the percentage of insured people by implementing several reforms in that specific area, although two interviewees mentioned that the reforms implemented in this regard are not enough and the state should continuously strive to increase the number of insured people. All interviewees agreed that being covered does not mean full coverage because the state covers medical services up to a certain threshold and the patient is required to cover the balance out-of-pocket. Further, four interviewees explained that the state budget is limited and unable to sustain major changes.

The accessibility of medical services was also discussed by the interviewees. Most interviewees agreed that primary health care clinics are available in most regions. However, most mentioned that some polyclinic (mainly those in rural communities) are not equipped with the necessary equipment, which is reason why patients often avoid visiting poorly equipped medical establishments and visit hospitals in regional centers or the capital to get proper attention. The accessibility problem is ranked the least important by the interviewees.

Survey Analysis and discussion

The assumptions underlying the survey questionnaire were driven from the review of different health systems and world models, personal observations and anecdotal evidence from multiple sources, but more importantly from information gathered from in-depth interviews. The following assumptions were considered: (a) the Armenian health care system is not based on a specific health care model; (b) health services are not affordable and rely heavily on informal payments; (c) a big segment of the population is not covered by any type of insurance; (d) the process of benefiting from state-funded services is not clearly articulated for public use.

Survey Analysis

Convenience sampling was used to survey the general population, $N = 169$, primarily for validating the findings from the interviews. Of those surveyed, 58 percent were females and 42 percent were males.39 per cent of participants were between the ages of 18-24, 32 per cent of participants in the survey were between the ages of 25-34, 18 per cent were between 35-44 and 10 per cent were over 45. More than 87 per cent of participants had a university degree, 6 per cent held a high school degree and 6 per cent have had secondary education. The majority of participants were residents of Yerevan with a mean income of 175,000 AMD (US $370), comparable to the official per capita income of the population.

Effectiveness and Awareness

The findings depicted in Table 3 show that there is preferential tendency to opt for private hospitals rather than state-owned clinics. The findings show that 66.3% of respondents claimed to be aware of the health services provided by the state, yet only 15% have benefited from state-funded services. This may mean that the respondents are not fully aware of how the

system works and how they may or may not benefit from the services covered by the state. Conversely, this may also mean that the process of benefiting from state-funded services is complicated and not accessible to everyone. This may also suggest that a large portion of respondents is not eligible to benefit from state-funded services.

Table 3 — Effectiveness and Awareness

N	Yes	No
Whether or not the respondent has visited a private hospital in the past year	66.3%	33.7%
Whether or not the respondent has visited a polyclinic in the past year	34.3%	65.7%
Whether or not the respondent is aware of what the state covers	66.3%	33.7%
Whether or not the respondent has benefited from state-funded medical services?	15.0%	85.0%

Table 4 — Access v. Quality Correlation

		Benefiting from polyclinic services in past year	Services provided by polyclinics are of good quality
Benefiting from polyclinic services in past year	Pearson Correlation	1	.332**
	Sig. (2-tailed)		.000
	N	166	166
Services provided by polyclinics are of good-quality	Pearson Correlation	.332**	1
	Sig. (2-tailed)	.000	
	N	166	169

Table 4 shows that there is a moderate positive correlation between benefiting from polyclinic services (N = 166) and satisfaction expressed by the beneficiaries with Pearson's ρ = 0.332 (sig. 0.01). Although the sample size is too small, this is still indicative of a possible inference that one of the reasons why the majority of respondents, 65.7%, who did not visit a polyclinic in the past year, might also be reason why they would rate low the quality of services provided by polyclinics.

Furthermore, the cross-tabulation in Table 5 shows that the vast majority of respondents who have had average or serious health issues did not opt for a state-funded polyclinic. This also raises the question of trust towards the state and its institutions and the quality of services provided in these institutions.

Table 5 — Seriousness of Health Problem v. Visiting Polyclinics

		Seriuousness of Health Problem			
Have you benefited from polyclinic services in the past year?		**Minor**	**Normal**	**Serious**	**Total**
	Yes	**12**	**6**	**3**	**21**
	No	**6**	**12**	**12**	**30**
Total		**18**	**18**	**15**	**51**

Table 6 — Level of Health Problem v. Attending Polyclinic

		Seriousness of health problem	Benefiting from polyclinic services
Seriousness of health problem	Pearson Correlation	1	.386**
	Sig. (2-tailed)		.005
	N	54	54
Have you benefited from the polyclinic services in the past year?	Pearson Correlation	.386**	1
	Sig. (2-tailed)	.005	
	N	54	166

Table 6 shows that there is a correlation between the degree of seriousness of health problems and whether or not they attend or benefit from a state-funded polyclinic with Pearson's $\rho = 0.\ 386$.

The cross-tabulation in Table 7 shows that the majority of respondents ($N = 166$) who did not visit a state-funded primary health care clinic in the past year did actually visit a private clinic or hospital. This again shows that there is tendency among respondents to prefer private hospitals and clinics over state-funded polyclinics.

Table 7 — Polyclinic v. Private Clinic/Hospital

		Accessing private hospitals		
		Yes	No	Total
Accessing a polyclinic	Yes	39	18	57
	No	73	36	109
Total		112	54	166

Accessibility

Of those who took the survey (N = 166), 96.4% claimed that primary health care clinics are available in or close to their area of residence. However, it should be noted that most respondents were from the capital city, Yerevan. This means that the accessibility of primary health care clinics in the capital is high. However, given the fact that the sample is non-representative, this finding cannot be generalized.

The survey showed that the 65% of those respondents that had accessed a private hospital in the past year believe that the process of applying for state-funded medical services is complicated. Although the sample size is not enough to draw a generalizable conclusion, this finding validates concerns expressed earlier by interviewees, but also provides an explanation that the prevalent public preference for private hospitals may not be altogether related to the quality factor and could be related, at last for some, with the complexity of the state-funding process.

Coverage and Affordability

Table 8 — Healthcare Coverage

	Yes	***No***
Respondents that have a medical insurance	32.5 %	65.7 %
Respondents that have benefited from state-funded medical services	15.0 %	85.0 %
Respondents that have benefited from free prenatal services	35.1 %	64.9 %

Table 8 shows that 65.7% of respondents do not have any type of health coverage or insurance. Moreover, only 15% of respondents who have had health issues have actually benefited from state-funded medical services, whereas 85% that needed medical assistance did make out-of-pocket payments. On the other hand, the percentage of respondents (35%) that have benefited from free prenatal services available through the state is measurably higher than that of those who have benefited from other types of state-funded services. This might be a result of recent government efforts to promote prenatal care by way of facilitating the application and approval process.

Table 9 — Affordability

	Yes	***No***
Awareness of someone who was/is unable to cover for his/her medical expenses	72.8%	27.2%
Ability to cover expenses related to a major-medical emergency	18.6%	81.4%
State assistance for covering personal medical expenses	19.1%	88.9%

Table 9 shows that 72.8% of respondents know at least one person who is unable to cover his/her medical expenses. Moreover, 81.4% of the respondents believe that in the case of a serious medical emergency, their income will be insufficient to pay for the medical expenses. Finally, around 90% of respondents with chronic medical issues stated that they do not receive any assistance from the state. On the other hand, those who actually got help received assistance from friends, family members or donors.

Transparency and Corruption

The analysis of survey data summarized in Table 10 shows that around 41% of respondents who have visited a polyclinic in the past year have made informal payments. Almost 80% of those who stated that they had made informal payments also stated that the amount per

visit varied between 1,000 and 5,000 AMDs (2$-->10$). The results indicate that the problem of informal payments is common practice in primary health care clinics.

Table 10 — Transparency and Corruption

	Yes	***No***
Services provided by polyclinics are completely free of charge	30.6%	69.4%
Receiving aid from the state is easier with the assistance of an intermediary	77.6%	22.4%
Making informal payments in polyclinics?	40.9%	59.1%

Finally, almost 70% of respondents stated that primary health care services are not completely free of charge are not completely free of charge. The contradiction between the respondent's attitude and the state law may mean that there is a transparency issue. Furthermore, the fact that the majority of respondents agreed that the interference of a mediator makes the process of benefiting from state-funded medical services easier raises the issue of transparency and corruption.

FINDINGS AND INTERPRETATION

The data collected from the interviews followed by the surveys helped identify and subsequently validate some of the existing problems in the current RA health care system to help draw conclusions and recommendations for reform. The content analysis of the interviews helped better understand the main drivers and underlying strategies of policy and procedural reforms and activities championed by the RA government. The content analysis also showed that the Armenian health care system does not follow a specific type or model and is a hybrid model which according to Rivard-Royer, Landry and Beaulieu (2002) is not a problem and may even be beneficial if it fulfills the needs of the state. That is why it is better to implement incremental changes over a longer period of time than to undertake radical changes that could cause more harm than good.

Moreover, the interviewees claim that the existing system mirrors the capabilities of the state. This is validated by the survey findings, which show that the majority of the participants have access to a primary health care clinic but do not regularly access it, instead accessing private hospitals. This reflects the issue of trust towards government and public institutions that can obstruct the development of the state as Kumar (2006) argues. Thus, the concern raised by the interviewees regarding people's indifference with regular checkups is validated.

Moreover, data collected from the interviews shows that there is a problem of effectiveness, primarily from the standpoint that some regions are oversaturated with primary clinics and hospitals while others fall short.

Another finding is that the majority of the interviewees agreed that people are somewhat familiar with state-funded medical services but don't know enough if they would be eligible to benefit from either service tracks available through the state. Furthermore, the lack of transparency and corruption issue is considered to present a problem in the opinion of the interviewees and as validated by the survey results also show that informal payments and assistance by intermediaries in facilitating access is ubiquitous. Lewis (2006) has discussed this arguing that it may serve as a major obstacle to the effectiveness of the health care system and therefore the development of the state (2006). The data collected from the surveys also showed that most respondents are not covered by insurance companies or the state and rely on out-of-pocket payments to get medical services.

LIMITATIONS OF THE STUDY

As noted earlier, the survey was meant to validate some of the findings from interviews. In spite of that, the sample size $N = 169$ is too small even for that purpose. However, the findings

of the current research are more or less fully based on the analysis of the qualitative data collected from.

RECOMMENDATIONS

The analysis of survey data and content analysis of in-depth interviews revealed the existing problems in the current health care system. The problems and issues broached by the interviewees and validated by the results of the surveys helped identify possible solutions and recommendations to policy makers, health care managers and other stakeholders.

Raising Awareness

Raising awareness of eligibility requirements and extent of coverage will help people benefit more from the state-funded services (both primary health care and other types of medical services) and may also grow a culture of saving or getting medical insurance. Additionally, awareness may also encourage citizens to get examined routinely and practice healthy lifestyle. Routine physical examinations may identify ailments early preventing complications and. costing considerably less than when diagnosed in advanced stages of ailments.

Increasing System Efficiency and Effectiveness

Some regions are clearly oversaturated with state-funded clinics and hospitals, which impose considerable burden in maintenance and operating costs. The government should evaluate the distribution of health organizations from time to time in accordance with changes in state demographics. Moreover, cost-benefit analyses could be helpful in assessing the merits of keeping or shutting-down a health care unit v. investing in infrastructure projects or additional emergency vehicles. For instance, improving the roads that connect regions, cities and communities to one another may facilitate the transportation of patients from one region to

another. Efficiency would also improve if the government were to allocate budgetary resources based on performance and number of patients served. This would also encourage hospitals to strive to continuously improve the quality of services.

The Armenian model is a combination of different systems. It has inherited its base from the "Semashko" system of the Soviet Union. After independence, reforms were implemented and many system features were drawn from various existing models. The current system is unique which, despite its negative aspects, is tailored to meet public needs. In reality, a radical change or the import of an existing model could have a negative impact because existing models do not take into consideration the peculiarities of Armenia (atmosphere, geography, altitude, mentality, budgetary resources, etc. Under these circumstances, incrementally increasing system effectiveness by implementing very specific, small changes is deemed more appropriate. In that regard, it would be logical to start by improving performance, including the quality and transparency of primary health care clinics.

Improving Quality

The findings showed that people often question the performance of professionals and doctors and the quality of services they receive. In order to resolve this problem, the government may consider allotting resources to monitoring the performance of health professionals and commending best performers with bonus payments and taking corrective steps with respect to under performers.

Mandating Coverage

As stated earlier, state budgetary resources are scarce and prohibit full medical coverage for all. The government may consider restructuring the state health budget such that new tax

revenues from profit increases realized by private health insurance companies from increased subscribers would be directed to covering the health premiums of socially vulnerable segments of the population. Opting for mandated health coverage by private companies would also push the burden of risks to private health insurance companies.

Electronic Patient Management Information System (MIS)

The RA Ministry of Health has recently initiated the implementation of an e-health platform which contains every citizen's profile, including medical conditions and current status. This MIS allows doctors and health care professionals to have access to a patient's complete medical history. The MIS also avails patients to access their personal file and to apply for state-funded medical services on-line. This will greatly minimize paperwork and errors from manual entry of medical history forms. It will also prevent people, health care professionals and government officials from abusing the system. According to the representative of the RA Ministry of Health, the MIS also reduces errors by monitoring the activities of health care professionals and facilitates sharing of medical information among clinics, hospitals and health professionals.

CONCLUSION

The research identified the strengths and weaknesses of the RA health care system. The findings from both the qualitative and quantitative data analysis show that although the health care system has considerably improved in the past years, it is far from fully meeting the needs of all segments of society.

In most regions, access to clinics and hospitals is available and the state budget coverage is gradually increasing. The government should do more work, however, to increase citizen

awareness of how the system functions and how to use it. The relatively poorer regional infrastructure of the regions combined with distance to access the nearest hospital stands as impediment to optimizing the system and increasing efficiency. Additionally, the uneven allocation of funds to hospitals and funds designated to cover per capita medical expenses are not enough to provide full coverage. Informal payments to and direct or indirect connections with health professionals are current features that appear to be continuing in the absence of performance based compensation and management of health professionals.

Finally, the weaknesses in the current health care system obstruct Armenia's path towards development. Due to the low fertility rate and large migration flow the government at this time cannot implement radical reforms or change the health care system. The weaknesses can be eliminated through reforms and techniques used by more developed countries with specific health care models. The government on the other hand should focus more on encouraging people to adopt a healthy lifestyle and promote the culture of preventive and regular checkups.

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APPENDICES

Interview Questionnaire

1. How does the current health care system work?
2. What kind of services does the government of Armenia fund and/or provide? Primary, Secondary, Tertiary?
3. How accessible are clinics and hospitals in the regions?
4. Who benefits from the services provided?
5. To what extent are citizens covered by the current health care system? How do citizens afford services that are not covered by the government?
6. Does the government or ministry provide services for citizens who cannot afford expensive services?
7. What are the problems that the current system face? How can the problems be fixed?
8. What are the problems that citizens face?

Survey Questionnaire

Introduction:

Human beings are crucial for the development of the state. Productive people work, create generate income and contribute to the economic growth. That is why it is crucial for the government to focus on increasing people's productivity. The state should invest in improving the educational system and empowering people. It should also improve the overall health of its citizens (Life expectancy, quality of life) by providing a good and affordable health care system because healthy people are more productive and contribute to the development of the state.

Purpose of the research:

The purpose of this research is to explore and understand Armenia's health care system by uncovering the strengths and the weaknesses. By doing so, I also intend to give constructive and practical recommendations on how to improve the current system.

Section I - Demographic data

Gender

- Male
- Female

Age group

- 18-24
- 25-34
- 35-44
- 45-54
- 55-64
- 64+

What is the highest level of education you have attained?

- Elementary
- Middle School
- High School
- Vocational school
- University
- None of the above

Residence

- Yerevan
- Kotayk
- Tavush
- Shirak
- Lori
- Syunik
- Vayots Dzor

- Ararat Valley
- Aragadzotn
- Geghargunik

What is your marital status?

- Married
- Single
- Divorced
- Widowed

How many members are there in your household?

- 2
- 3
- 4-5
- 6 or more

Do you have any children?

- Yes
- No

If yes, how many?

- 1
- 2
- 3
- 4
- More than 4

Indicate you monthly income range

- 0-50,000 AMD
- 51,000-100,000 AMD
- 101,000-150,000 AMD
- 151,000-200,000 AMD
- 201,000-250,000 AMD
- 251,000-400,000 AMD
- 401,000 AMD and more

Section II- Respondent's conditions of health

Is there a primary health clinic within a 5-km radius from your home?

- Yes
- No

Have you accessed a primary health clinic in the past year?

- Yes
- No

If yes, were you required to informally pay an out-of-pocket sum to the doctor or specialist?

- Yes
- No

If yes, how much?

- Less than 1,000 AMD amd
- 1,000-5,000 AMD
- More than 5,000 AMD

In the past year, have you accessed private hospitals?

- Yes
- No

Are you familiar with the state-sponsored coverage (պետ պատվեր) system?

- Yes
- No

Have you every benefited from state-sponsored medical services?

- Yes
- No

If no, why not?

- I don't trust state-sponsored medical clinics
- State clinics do not have the specialists I need
- State clinics are corrupt
- Other (please specify) _____

Do you know someone who has benefited from state-sponsored medical services (Պետ Պատվեր)?

- Yes
- No

If yes, could you please elaborate?

Do you know someone who had difficulty raising money to cover his/her medical expenses?

- Yes
- No

Have you ever contributed in helping raise fund for someone who needs medical attention?

- Yes
- No

If you have any children, have you benefited from the free prenatal care package services provided by the government?

- Yes
- No

Are you covered by any type of health insurance?

- Yes
- No

If yes, how are you covered?

- State funded insurance
- Insurance plan provided through your employer
- Private insurance I have acquired myself
- Other ----------

Do you receive any assistance for your medical expenses?

- Yes
- No

If yes, what is the source?

- Ministry of health
- Ministry of Social Affairs
- International organization
- Individual donor/donor's
- Other ----------please specify

Please indicate the extent to which you agree or disagree with the below statements

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The process of getting state funded medical service is simple					
Medical services in polyclinics are completely free					
Making under the table payments to doctors and professionals is prohibited by law					
Bribing doctors and professionals in polyclinics is a must do thing					
Bribing in order to benefit from state funded medical services is a widespread phenomenon					

I consider the Intervention of a mediator to benefit from state funded services important					
In case of a serious health problem I will be able to cover my health expenses					
I pay out of pocket to get medical services					
Polyclinics are available in my area					
I prefer to benefit from paid medical services					
Services provided in polyclinics are good (quality)					
When I pay for a medical service I get a better-quality service					

Coding and instrumentation:

Category 1: Affordability

Category 2: Accessibility

Category 3: Effectiveness

Category 4: Quality

Category 5: Awareness