National Drug Provision Policy for Armenia: Compulsory Household Drug Coverage

Master of Public Health Thesis Project Utilizing Problem Solving Framework

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T a b l e o f C o n t e n t s

A c k n o w l e d g e m e n t s

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Executive Summary

As most transition economies of the former Soviet Union, Armenia has undergone substantial changes in the socio-economic infrastructure and capabilities. The average income of the population has dropped drastically since independence acquired in 1991. Naturally, health care system, being totally dependent on governmental subsidies, has been one of the areas to suffer the most.

Socio-economic hardships have depressed consumption of health care services by the population. In particular, outpatient pharmaceutical treatment is currently hard to afford, especially if speaking about long-term treatments. The low affordability of outpatient drugs restrains people from initiating a treatment or forces them to discontinue one and is recognized by the current paper as a public health problem. The pervasiveness of socio-economic difficulties for the general population shows the nationwide magnitude of the problem, which needs to be solved.

The proposed Compulsory Household Drug Coverage (CHDC) program aims at helping people to get needed pharmaceutical treatment in outpatient settings, because the Basic Benefit Package (BBP) designed by the government of Armenia covers medications presumably for in-hospital acute cases. Enrollment eligibility is indiscriminate for the whole population of Armenia.

The program initiation should start with an appropriate political decision and creation of a solid legislative basis for the program. Next, it is necessary to establish an accumulative CHDC Fund, where the residual financial resources at the end of each calendar year will not be subject to neutralization. Finally, formularies should be developed that would include diseases/health conditions and drugs to be covered. The program will be evaluated annually, with regard to the following: a) the extent of actual population coverage, b) whether the planned budget was met, c) pharmacists' and physicians' compliance with the Fund policy and, finally, d) satisfaction of the covered.

Statement of Problem

The major determinants of health are the following three: 1) genetic constitution, 2) environmental conditions and 3) social conditions and relationships.[1] For the current paper, the last is of particular interest. According to Starfield, unfavorable social circumstances, including social position, socioeconomic status, and social class, result in a decreased exposure to both preventive and medical care.[1]

Socioeconomic barriers may limit access to health care services at various stages. First, people may find it unaffordable to visit a doctor for a diagnosis. Second, they may not be able to pay for the whole spectrum of treatment procedures required by their health condition. Finally, patients could find it impossible to afford medications prescribed by their physicians.

All of the three stages are important and implementation of an improvement program at any of them may have positive results in health. Because the first two are beyond the scope of this paper, the focus will be made on the problems related to inability to initiate and/or maintain a drug treatment because of financial reasons.

Medications are very much integrated in the overall process of treatment, and their role and necessity are so obvious that few, if any, would even account them as a separate item when thinking about medical care. Indeed, pharmaceuticals are extremely productive, especially as compared to other health care inputs. Drug therapies traditionally have supplemented nutrition, sanitation, and medical care as methods for preserving health.[2] Thus, great efforts have been made to find effective and safe medicines. Technological advances in production of medicines have resulted in a shift from inpatient to outpatient care in the last two decades.[3, 4]

With the progress of the pharmaceutical industry many drugs have come into existencethat made it possible to treat some diseases, which formerly required a surgical

intervention. Forexample, in present times, stomach ulcer may be cured by combination of Solcoseril® injections and Mopral® capsules in such stages, in which formerly a surgery would have been unavoidable. In addition, a huge number of medicines have been introduced that has drastically enriched the existing treatment arsenal of many diseases.[3] By developing innovative vaccines and medications, the pharmaceutical industry has made critical progress in the treatment of some fatal illnesses. For instance, in Canada, pharmaceuticals have literally eradicated diseases, such as diphtheria, chickenpox and polio.[3]

Nevertheless, these important and highly valuable achievements of pharmaceutical research did not automatically result in better health. Health care outcomes are heavily dependent on patients' compliance with the treatment schemes prescribed by their physicians. On the other hand, many people are unable either to sustain a long-term treatment, or even to start one. Costs of medical services are going up in such countries as the United States of America and Canada, along with new and more expensive pharmaceuticals coming into play.[3, 5] New and more expensive medications are very much at the root of growing prices of health care services.[3, 5] In Canada, for instance, one of the potential reasons for high health spending may be that the cost of research and development of new drugs has increased tenfold during the past twenty years.[1] The introduction of new and expensive drugs has only added to the expenditure burden.[2, 6] This burden has become especially severe for the elderly.[2]

Such tendencies question the very ability of the sick to get medical help. Taking into consideration the aforementioned facts, as well as continuous aging of the population, a steady increase in demand for drugs in the future seems of no surprise. The threat of lowered accessibility to pharmaceutical treatment appears to be the most serious in low-income countries, including Armenia (classified as a country with a lower-middle-income economy).[7]

During the Soviet period drugs were much cheaper than they are now and the main problem that people encountered in those days was the problem of shortage. Currently, the state of affairs is exactly the opposite. Although, the domestic pharmaceutical industry provides a limited number of medicines, the shortage of drugs has been substantially contained since the dissolution of the Soviet empire. Free trade, which became possible after acquiring political and economic independence, has opened Armenian pharmaceutical market to the world.

However, this did not make drug treatment affordable. A patient's compliance with the prescribed drug treatment regimen largely depends on his or her purchasing power (or disposable income), especially in case of chronic illnesses, which need long-run care. Therefore, many people discontinue their treatment because they cannot afford it any longer. Due to lack of purchasing power, patients often find themselves in a dilemma: either go to see a physician, not being able to buy medicines afterwards, or to buy medicines without getting medical consultation from health care providers. This forces many people to seek medical advice in drug stores.

One of the pharmacist's responsibilities, along with delivering medicines, is to perform so called "informative-enlightening" work among the population served, by providing his customers with full information about a drug usage, possible side effects, ways and appropriate time of taking and, to some extent, clinical advice.[5] But this role never implies that pharmacists are supposed to make diagnoses or to prescribe treatment.[5] They do not have adequate qualification and training in therapeutics to do so. Nonetheless, there are cases, when pharmacists abuse their position and responsibilities providing pseudo-diagnoses, as far as it promises some subsequent drug sale.

This poses a threat to health of the population. Inadequate medical advice gained fromnon-physicians may have devastating consequences. For instance, if someone gets an

antidiarrheal medicine following the advice of a pharmacist just based on symptoms of diarrhea, it may have serious consequences for that person. The same manifestation of diarrhea may be induced by various etiologic factors. It may by as a result of digestion dysfunction, simple cold or a bacterial infection. Accordingly, the choice of medications is specific for each of these three cases. The first two require medicines acting on the symptomatic level. Conversely, if an individual undergoes solely a symptomatic treatment when the diarrhea is of bacterial origin, it may temporarily relief the condition, but eventually, the person may end up either with a chronic diarrhea or even death from dehydration.

Financial barriers to having access to health care do not allow patients to get initial or follow up visits to health care providers for diagnosis, medical advice or treatment. The magnitude of these phenomena, which is presented in the following section, indicates that we deal with the problem on public health level, which requires serious attention and practical actions to be solved. The problem is defined as inability to initiate or continue an initiated pharmaceutical treatment due to population's low solvency.

Meeting the needs of all those who cannot afford adequate medical care without some assistance must be a top priority for Armenian government.[8] The ideal goal to be reached is making prescription drugs equally affordable for the population of the Republic of Armenia, as required by each patient's state of health. Secondary goals are the containment of drug expenditures, and the promotion of the proper use of drugs.

If the Ministry of Health accepts the proposal, further work will be continued on details of implementation and evaluation. At this stage, however, it should be noted that the asic elements of evaluation should include the assessment of the extent of the population's coverage,physicians' and pharmacists' compliance with the Plan guidelines and, importantly, estimation of satisfaction of those, whose good this program is called to strive for.

Magnitude and Significance of the Problem

The literature speaks strongly for the magnitude of the problem being worldwide and not just limited to a number of low-income countries. Even in such developed countries as Italy and Great Britain, considering a drug treatment often is a matter of choice: "buy the food or buy the drugs."[9] A qualitative study reveals that when Italian and British physicians face the problem of patients' low income, they either "do not prescribe at all or limit the number of prescription items when more than one item would have been the most effective clinical option," or "recommend some delay or change the therapy to something less effective but cheaper."[9]

While spending on pharmaceuticals represents less than one-fifth of the total public and private health spending in most developed countries, in transitional economies it represents 15% to 30% of health spending and 25% to 66% in developing countries.[10] Despite the potential health impact of essential drugs and despite substantial spending on drugs, lack of access to essential drugs and inappropriate use of drugs remain serious global public health problems. Today over one-third of the world's population (primarily in the poorest parts of Africa and Asia) still lacks access to essential drugs. Fifty to ninety percent of drug spending in developing and transitional economies is paid out-of-pocket and the burden falls heaviest on the poor.[10]

Post Soviet Armenia did not escape the problems in health care system brought about by economic upheavals. "Immediately following independence, Armenia faced devastating economic and sociopolitical problems, which led to a decline in health status and put overwhelming strain on the health care system."[11] In 2002, 49.1 % of Armenian population lived below the poverty line.[7] This fraction consists primarily of the elderly, disabled and population in rural areas – the most economically vulnerable fraction of the population. Socially vulnerable groups are defined to include the following: disabled persons; war

veterans; children under the age of 18 with one parent; orphans under the age of 18; disabled children under the age of 16; families with four or more children under the age of 18; families of war victims; prisoners; children of disabled parents; Armenian citizens participated in Chernobyl disaster elimination activities; catastrophe rescuers.[11] Apparently, the prevalence of drop-out-of-treatment, not visiting doctors and in-pharmacy medical consultations are higher in the low-income fraction of the population.

Data on the magnitude of the problem related to Armenia are limited. No health care facility possesses information on drop-out-of treatment rates due to financial reasons, nor is it known what proportion of the general population fails to see a doctor within a given period because of inability to pay. However, there are two studies conducted in Armenia, which contain some data that could be considered as good estimates of the real scope of the problem.

According to a household health assessment study conducted in Armavir, high prices for medical care services were the major barrier regarding access to medical care for the overwhelming majority of the respondents (87.3%). Moreover, the proportion of the people visiting a clinic during a one month period was rather low (15.9% for adults and 21.6% for children); two third of the respondents (67.0%) told that their family members needed a medical help during that period but could not see a doctor mainly (in 87.5% of cases) because they could not afford the services.[12]

Additionally, a survey, related to women's access to and utilization of health care services, which was conducted within the framework of the national demographic and health survey in 2000, revealed that 40% of women reported that they had a medical problem but did not see a health professional. Almost all of these women cited lack of money as the primary barrier to accessing health care.[13]

Although the findings of these two studies are not based on large fraction of the population in Armenia, they can be considered representative, because socio-economic hardships pervade the whole Armenian society. According to European Observatory, direct out-of-pocket payments constituted about 60% of total financing for health care in Armenia in 2001;[11] however, this may be an underestimated number. It is estimated that as much as 80% of inpatient drugs are purchased privately by patients.[11] The lack of available funds for health care and drugs has led to lack of affordability of essential drugs for increasingly large parts of the population. The value added tax on pharmaceuticals further reduces affordability of essential drugs.

The low socioeconomic status limits a person's ability to consume health care services and acquire appropriate medical attention. This, in turn, hurts social performance and working capacity, causing the sick to experience further financial deprivations and withdrawals from social activities because of inadequate and incomplete treatment. Moreover, poor health prevents the disadvantaged from competing equally in the marketplace.[13] Despite their generally worse health status, the indigent are less likely to have a regular source of health care, are less likely to be insured, and are less likely to receive health care services than more affluent persons. The indigent tend to have more illnesses and disabilities than more affluent citizens.[1, 16]

Thus, low income and poor health put the individual in a vicious circle, directly creating burden on health care system in the form of more hospitalizations and longer inpatient stays.[4] On the other hand, this affects indirectly the society by causing loss of productivity and working days, enlarging the army of chronic patients and increasing the opportunity costs of running health care system.[14] Surely, the problem of failures-to-accomplish a drug treatment is of public health concern, because the health of individuals influences the health and welfare of other people. Here the concept of "external benefit"

comes into play: "people, individually or collectively, derive some satisfaction from the receipt of medical care by others".[6] Provision of drug treatment is a good investment but one that is unlikely to be undertaken by the poor without governmental support.

Economic and physical well-being are not the only reasons requiring solution to this problem: human beings should have the right not only to survive but also to live with dignity. The assurance of dignity for every member of the society requires a right to a decent existence – to some minimum standard of nutrition, health care, and other essentials of life. No one should die because of lack of financial resources to obtain adequate medical care or suffer desperation or pain because of lack of health care that money can buy.[15]

Key Determinants of the Problem

The problem of failing to initiate or maintain a pharmaceutical treatment has several determining factors. Among them are the level of educational attainment, geographic location, and socio-economic status.

The literature shows that people with higher education tend to be more health conscious.[17] They are more concerned about their health and take care of themselves by seeing a doctor and keeping compliance with the prescribed treatment.

Geographic location may also play a determining role in the access to health care facilities and drug stores. In many rural areas, they are located far from the living site and it is often not convenient for people to go for routine treatment drugs, unless there is an emergency.[18]

However, the main determinant of the problem that this paper focuses on, is the socio-economic status. The effect of this particular determinant on the severity and magnitude of the problem is the greatest in Armenia and immediate actions should be taken to alleviate the socio-economic barriers to pharmaceutical care.[12, 13]

Prevention/Intervention Strategies

Armenian government has adopted a policy called to assist the population in getting medical care. It is the Basic Benefit Package (BBP).[11] The BBP is a publicly funded package that includes a list of services covered and a list of categories of population that are eligible for coverage.

The BBP is renewed every year, and services/groups may be deleted or added accordingly. The Ministry of Health is attempting to develop a "realistic package" in line with the available budget, as well as in line with realistic prices for the services provided by the health facilities.[11] While every following year's new package is believed to be an improvement over the previous one, and prices more realistic, this has not completely solved the problems of access to services by the most vulnerable and informal payments remain prominent.[9] All hospitals and polyclinics are obliged by the law to continue to treat those parts of the population covered by the state's basic health care package. The most recent BBP, specified in 2000, covers many services, but it does not cover prescription pharmaceuticals.[11]

All patients falling into a priority group are to receive pharmaceuticals for free as inpatients, whereas as outpatients they are expected to pay only a small portion of drug costs. Nevertheless, the majority of covered inpatients pay out-of-pocket for most drugs. All other residents in Armenia must pay out-of –pocket, in full, for pharmaceuticals, unless they are suffering from an infectious disease, require emergency treatment or are covered by the Ministry of Social Affairs scheme for the socially disadvantaged.[11] Outpatient services are charged on a fee-per-visit basis with all drugs purchased by patients out-of-pocket.[13]

State funds have been insufficient to fully cover inpatient pharmaceutical requirements, with the result that even patients identified to be in the vulnerable groups often must pay out-of-pocket. Outpatients covered by the BBP officially are to pay a nominal sum

towards the cost of drugs and the state must reimburse for the full price. However, in practice it is hard to find evidence of such reimbursement, and in fact even covered patients must pay the full cost out-of-pocket.[11]

Given that most pharmaceuticals are imported into Armenia and are therefore relatively expensive, the Ministry of Health takes steps to encourage a more cost-effective pattern of consumption. A National Drug Policy adopted in 1995 encourages prescribing generic drugs from the national essential drug list and Armenian drug formulary that came out in 1997.[11] In the 1988-2000, Optimal Drug Treatment Guidelines on 40 priority diseases were developed.[11] Corrective measures for inappropriate prescribing are insufficient due to limited drug utilization studies, lack of mechanisms of adverse drug reaction monitoring, and insufficient statistical information on drug related problems. Drugs provided by humanitarian programs are estimated to contribute 40-45% of all pharmaceuticals consumed. Cost containment in the pharmaceutical sector has focused largely on drug prices, while other measures like generic prescribing,
volume-reducing measures and incentives favoring low-priced drugs are not yet widely used in spite of government measures to introduce them.[11]

In addition, the Armenian government collaborates with the World Health Organization (WHO) in pursuing the following projects: 1) A regional drug reimbursement pilot in the Kotayk marz aimed at improving access to quality drugs for poor groups with relatively high drug costs, and 2) Better treatment outcomes through efficient use of various tools and mechanisms for appropriate drug prescribing and use.[11]

Currently, there is a drug insurance program in Armenia operated by the United Methodist Committee on Relief (UMCOR) within the framework of the Armenian Social Transition Program.[27] This program, called Revolving Drug Fund (RDF), has been implemented in some rural areas, including Gegharkunik and Lori. It is a community-based

program, enrolling households. Depending on whether a particular family has a member with a chronic disease or not, it is obliged to pay a monthly *premium** of 1,000 or 500 Armenian Drams (AMD) respectively. Drugs are delivered under physician's prescription and without limitations. The compliance with regard to *premium* payments varies from 20 to 90 % across communities. Financial support for the program is provided by the United States Agency for International Development (USAID).

The program is in an experimental stage and is recognized and welcomed by several communities. Mutual trust and interpersonal relationships between the head of the community and the community itself, have largely determined the initiation and success of the program. The operational management of the program is trusted into the community chief's hands and UMCOR staff is only an o*utside provider of drug supply. If a particular community is successful in running the program, it may be attributed to their enthusiasm and willingness to bolster its viability. Problems arise primarily for three main reasons. First, negative interpersonal relationships between the head and the community appeared to threaten the existence of the program. Second, in some villages physicians were giving extra medications on demand of enrollees, causing excessive expenditures. Finally, the program implementers encountered the issue of refusal by some communities, because they considered themselves wealthy enough to afford drugs without assistance. This latter issue was prevalent especially in villages of Sevan area.[27]

At present, Armenia, has no private insurance company specialized on health care insurance. However, there are 14 licensed private insurance companies and some of them include medical insurance under the umbrella of other, not health-related policy options. Of these 14, "Efes" Insurance Closed Joint-Stock Company is a particularly interesting example

* hereafter, terms in *italic* are defined in the Glossary

to focus on. It has signed contractual arrangements with a number of leading Armenian medical institutions to provide health care to its enrollees.

"Efes" covers a standard list of health care services. Criteria for eligibility require that the enrollee does not have any clinical preconditions. This protects the company from the effect of *adverse selection*. The policy offers two options of coverage: with $6,000 and $12,000 per annum *premiums*. The two options differ in their scope of services covered. "Efes" does cover the use of drugs but only in the framework of in-hospital medical care services, undertaken for immediate purposes of curing or relieving acute episodes of an illness or injury. The company does not insure pharmaceutical treatment as a separate item, especially thinking of as outpatient drug treatment of chronic conditions. The proportionate composition of the insured is the following: 40% of enrollees is represented by foreign citizens, 55% of the insured are Armenian citizens hired by foreign companies operating in Armenia, and 5% are Armenian citizens working in domestic businesses.[26]

Policy and Priority Setting

There are many options to solve the problem defined. Each of them has its own advantages and disadvantages, political and technical feasibility issues. Here are several speculations on a limited number of approaches to problem solving.

First of all, if prescription drug insurance is considered, it will require an infrastructure, an initial financial input and technical staff. The more comprehensive is the policy both in terms of number of enrollees and the extent of drug coverage, the more excessive are the requirements. It is obvious that the nationwide program of compulsory drug insurance will demand such resources the most. This is going to be the most vulnerable point of the program proposed that threatens its political and financial feasibility.

Indeed, in 2002 there was an attempt by the Armenian Social Transition Program to introduce Mandatory Medical Insurance (MMI) in the republic of Armenia.[27] This program was designed to assure access to health care services for all the residents of the Republic of Armenia on the basis of compulsory payments from the taxes. One of the advantages of MMI, if successfully implemented, would be a system of comprehensive compulsory health insurance whereby most of the population would be covered. However, the proposal was rejected by the Parliament, which had the following underlying reasons. The key reason was the fact that the main part of health care system's revenues evade official structures due to under-the-table payments, thus making impossible the improvement of the overall health care financing system.[11] Much economic activity is still in the informal sector, and the state would be unable to collect sufficient taxes to fund an adequate level of care for the whole population.[11] Moreover, current tax legislation (especially the "Law on Income Tax") does not create incentives for employers to insure their workers.[11] According to European Observatory, the development of such a comprehensive system may take at least ten years, as it depends upon the achievement of significant increases in per capita Gross Domestic Product, reductions in informal payments both in the health sector and the economy in general and improvements in the tax system including increased compliance with payment of income tax.[11]

Among the other important reasons that question the implementation of the MMI is the very low income level of the majority of the population, which induces a preference for spending on medical services as needs arise rather than paying for insurance against future risks.[11] Furthermore, the majority of the population is unclear about the meaning and advantages of health insurance and does not trust the notion of medical care insurance as a result of the fact that in the last several years the payments for services involved unofficial out-of-pocket fees to a very large extent.[11]

Community-based insurance is another option for solving the problem of drug affordability. "Jyorei scheme" implemented in Japan may serve a good example from international experience.[26] "Jyorei program" had several features, typical of a community-based health insurance. Purpose-specific prepaid contribution collections, rather than general taxes, provided greater transparency and accountability, leading to easier acceptance by villagers of such a mechanism.[26] The program established an important degree of equity in population contributions. They set contribution levels according to household income levels. The average contribution amounted to 2.9% of the average annual household income. The village communities gave the authority to the village heads to organize the schemes. The village heads had full authority and autonomy to act as agents for the community. The pre-paid method inhibited supplier-induced demand and *moral hazard* appeared to be minimal, due to the high degree of mutual control among villagers.[26]

An example of a domestic community-based insurance was the RDF implemented by the UMCOR. The experience of RDF implementation, as well as "Jyorei scheme", indicates that one of the keys to the success of any community drug insurance policy is people's attitudes and willingness to participate along with mutual commitment of the community members to keeping their own health insurance affordable and sustainable. However, unlimited provision of drugs and poor control of the drug supply may threaten the viability of an insurance project. Therefore, it is crucial that realistic and achievable objectives and appropriate management tactics in terms of planning, organizing and control are set at the very beginning.

Community-based insurance, despite the potential advantages, may not be applicable to Armenia nationwide. It may work well in relatively small communities, where people know each other and share mutual trust, as it is in villages. Conversely, in large cities this type of policy may not be appropriate.

There is also an opportunity of obtaining drug insurance through private insurance companies. They possess some advantageous features that make them attractive for customers. First of all, they are voluntary. Secondly, purchasing insurance policy from private insurance companies gives one a certain range of choice and freedom in terms of covered services and payment requirements, and the consumer may decide on an option that fits him or her best. This is not typical of compulsory national insurance policies or community-based schemes.

Further, many private insurance companies write their coverage on an experience-rated basis. Under this system, a group that has heavy utilization of benefits in one year will be required to pay a higher *premium* the following year; conversely, a group, whose utilization is relatively low, will receive a reduction in *premium* rates within a year or two. Under such a system, a third-party payer bears only limited financial risk and has relatively limited incentives to control improper utilization of drugs, and thus induces *moral hazard.*[27]

Additionally, private insurance companies have been reluctant to write comprehensive policies for the elderly and the poor because of the fear of taking on an excessive number of bad risks.[15] Employer-based private insurance could discourage the employees from changing jobs because of the fear of losing their coverage.[27]

Finally, policies offered by private insurance companies, are much more expensive and have higher administrative costs. Therefore, establishment of such private companies, specializing on provision of pharmaceuticals, may be a good opportunity for those who can afford it, but will not be attainable for the vast majority of Armenian population.

Specific Recommendations

Considering all the discussed options for solution of the problem makes Compulsory Household Drug Coverage (CHDC) the most attractive, despite its weaknesses. It has several advantages favoring it over other approaches.

The key advantage of compulsory drug provision policy is its nationwide coverage. Implementation of such a program will substantially release the financial burden of the sick and make them able to afford, at least, some specified drug treatment schemes.

In the recognition of the economic and organizational problems (widespread unemployment, the presence of a significant underground economy, the additional tax burden that social insurance entails), CHDC is to be implemented gradually, step-by-step.

1. It should be based on a political decision on a realistic mechanism of implementation: CHDC Plan (or: Plan) is based on the presumption of covering chronic conditions and outpatient pharmaceutical care.
2. A solid basis of legislation should be created, defining the rights and responsibilities of the insured and the CHDC network staff, as well as legal norms for execution of penalty measures toward non-compliant physicians and pharmacists.
3. Development of appropriate infrastructure should be initiated by making financial investments for: a) computerization, b) hiring expert staff , and c) development and printing of special prescription forms to be exclusively exploited within the frame of the Plan.
4. CHDC Plan should be separated from the BBP, clearly indicating that coverage of in-hospital acute conditions and emergency cases must be provided by the BBP. A system of co-payments should be established for the diseases and medications of secondary importance. CHDC Plan is intended to cover out-patient drug expenditures.

5. Contributions to the CHDC Fund should be differentiated according to household income and family size (single, 2 to 4, more than 4).
6. Eligibility criteria are the following: a) For enrollment: all the Armenian population, and b) For payment: those working or self-employed, as well as pensioners.
7. Arrangements should be made to ensure timely and complete collection of *premiums*, and hence financial stability of the system.
8. CHDC Fund (or: Fund) must estimate and clearly define coverage costs of each drug considering the treatment scheme based on realistic prices and utilization rates.
9. The CHDC will be implemented by the Fund, which will be established by the government for that purpose.
10. Other pieces of legislation, such as the "Law on Income Tax" and the "Law on Profit Tax" should be revised so as to establish tax incentives for the promotion of private drug insurance policies.
11. Establish CHDC Fund that will be accumulative, rather than subject to annual allocations. Residual financial resources not utilized by the end of a calendar year must remain in the Fund's budget. Legislative protection should be provided for the CHDC Fund to guarantee its inviolability.
12. If it becomes possible to generate sufficient taxation to fund more comprehensive list of medications and health conditions, the Fund will extend the benefits package.
13. There should be defined a list of voluntary pharmacies, who are suitable from the Fund view for collaboration in dispensing pharmaceuticals to the insured.
14. Certain mechanisms of financial reimbursement of partner pharmacies should be developed.

There are two possible problems that should be taken into consideration in order to have the full picture of possible threats to the project viability. First, there is a possibility of

overutilization and excessive expenditures, which may result in elevation of drug prices. These may be induced by the effect of *moral hazard*. There are several strategies that may be exploited in order to keep drug prices contained.

One strategy is the adoption of drug formularies. There should be developed a list of approved drugs. A positive formulary restricts the choice of drugs to those on the list. A negative formulary excludes drugs on the list. The formulary review and approval process can deal not only with generic substitution, but also with recommendations of different drugs that can be used to treat a condition.[2]

Another approach to keeping the effect of *moral hazard* to a minimum is the strategy of*copayments*. *Copayments* are intended to shift some portion of the cost burden to the patient and to decrease unnecessary consumption or consumption of substitutable brand name drugs.[2] When generic *substitutes* are available, *copayments* for brand products allow substantial shifts toward lower-priced generics without affecting overall utilization. Patients and providers, who consider the generic a close substitute, will choose the generic. Additionally, the requirement that some *copayment* be paid makes consumers more alert to differences in the true costs of the medications they are purchasing. Hence, *copayments* can produce substantial savings to the CHDC Plan.

Third, charging of *deductibles* discourages frivolous claims, and also makes insured people more aware of the results of their actions, at least bringing to minimum unnecessary initiations of treatment. Both *copayments* and *deductibles* may serve to avoid unnecessary claims and to reduce costs.[2]

Beside the effect of *moral hazard,* there are other factors that are also at the root of the problem of excessive expenditures. It has been shown that giving greater weight to the information provided by sales representatives of pharmaceutical companies is related to a larger number of prescriptions and to greater drug expenditure.[26] Pharmaceutical companies

exploit primary care physicians' detachment within the health system to create personal links with them and promote prescription of their products.[26] Therefore, if resources permit, it may be a good approach if the CHDC Fund allocates resources needed for updating physicians on a regular basis. At least, the CHDC Fund should keep physicians updated with optimal treatment schemes with regard to therapeutic value and cost-effectiveness. This will keep them informed about the latest and most rational treatment schemes, and loosen the influence of advertising of pharmaceutical companies on their preferences in prescribing drugs.

Further, the CHDC policy should make a clear statement about the unacceptability of executing the function of drug delivery along with prescription by physicians. Combining prescribing and dispensing creates incentives for physicians to increase drug prescriptions and is hypothesized to be a major cause of high drug expenditure and widespread prescription of antibiotics.[27]

Though, there is a potential for *adverse selection* to occur in any insurance program, it is more typical of voluntary, rather than mandatory programs. The fact that the CHDC Plan will cover the whole Armenian population addresses the issue of *adverse selection*.

Evaluation of the Program

The evaluation of the program should be set on an annual basis. It is intended to have quantitative and qualitative components and include the evaluation of the population coverage, fulfillment of planned budget, compliance of physicians and pharmacists, and satisfaction of the insured.

First, population coverage estimation is to be made with regard to the extent of meeting of program objectives. As it was mentioned above, a list of diseases and health conditions, as well as a formulary of pharmaceuticals should be designed for coverage. Annually, the evaluating committee is to estimate the proportion of those who fall under the

coverage umbrella by health condition and really get covered by the CHDC. Also, it is necessary to further estimate the proportion of patients receiving pharmaceuticals during the whole treatment course, as far as dropping from drug treatment was considered one of the two key problems, which the CHDC Fund is supposed to solve.

Second, budget functioning of the CHDC Fund should be evaluated annually in order to estimate budget deficiency and more finely tune the objectives for the next year. If there occurs a budget surplus at the end of the year, it is not subject to utilization by government, but has to be accumulated by the CHDC Fund.

Third, compliance of physicians and pharmacists with the Plan's guidelines has to be estimated on an annual basis. For this purpose, a special form has to be developed, where along with other information, patient's identity, diagnosis, treatment assigned and drugs prescribed should be written down, as well as the name of the physician. Beside these, the form has to inform, whether a particular individual had fulfilled the pharmaceutical treatment and, if not, whether the termination of the treatment occurred for reasons other than physicians' or pharmacists' compliance (hypersensitivity toward the medication prescribed, the absence of the medicine and its substitute/s in the market, death of the patient).

Physicians have to keep up with prescription schemes guidelines and if drugs are prescribed in amounts exceeding protocol limits, such cases should be checked out by comparing with disease history of the patient. Pharmacists' compliance is viewed in dispensing the exact pharmaceuticals prescribed by physicians, and cases of denial or substitution of prescribed medicines with more expensive brand names not included in formulary.

Finally, a qualitative research exploring attitudes, beliefs and level of satisfaction of the insured with the Plan, as well as satisfaction of physicians and pharmacists should be a

routine annual performance. The qualitative part of the evaluation will take into consideration wishes, comments, concerns and complaints of all the three subgroups. This information will help when making quality improvements and designing the policy and strategies for the next year's CHDC Plan.

G l o s s a r y

Adverse selection – a phenomenon in which individuals who know they are most at risk of utilizing insurance benefits disproportionately purchase insurance. As health insurance becomes more and more expensive to buy, healthier subscribers drop out or switch to cheaper plans, while those who are more likely to use benefits retain coverage in plans providing better benefits[5].

Copayment – A portion of health care charges that the insured have to pay under the terms of their health insurance policies.

Deductible – The portion of health care costs that the insured must first pay (generally up to an annual limit) before insurance plan applies.

Insurance – an arrangement that allows risk-averse individuals to reduce or eliminate the risks they face.[2] As a mechanism, insurance is a social device under which two or more entities (generally many more than two) make or promise to make contributions to a fund from which the insurer promises to make certain cash payments or render certain cervices to those contributors who suffer accidental losses.[27] As a mechanism, insurance differs from most noninsurance transfers in the following ways:

(1) The insurer pools or combines many loss exposures
(2) The insureds contribute to a fund out of which cash payments or services are provided
(3) The insurance contract deals solely with the transfer.[27]

Moral hazard – moral hazard is at work when insurance reduces a person's incentive to avoid or prevent a risky event[14]. The additional quantity of health care demanded, resulted from a decrease in the net price of care attributable to insurance.[2]

Premium – The amount charged by the insurer for insurance coverage. It is the price for an insurance plan.

Substitutes – Substitutes in consumption are goods that satisfy the same wants so that increase in the price of one will increase the demand for the other.

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